

For Coatings, Resins and Related Materials

SECTION I - PRODUCT IDENTIFICATION

Manufacturer: Crawford Laboratories, Inc. Information Phone: 773-376-7132
4165 South Emerald Avenue Emergency Phone: 800-424-9300

Chicago IL 60609 ! Hazard Ratings: Health - 1
Product Class: URETHANE ADHESION ! none -> extreme Fire - 2
Trade Name : BONDING ADDITIVE ! 0 ---> 4 Reactivity - 0
Product Code : U0-077 !
C.A.S. Number: NONE AVAILABLE !

SECTION II - HAZARDOUS INGREDIENTS

Table with 6 columns: Ingredients, CAS #, Weight %, Exposure Limits (ACGIH/TLV, OSHA/PEL), VP (mm HG). Rows include ORGANOSILANE ESTER and PM ACETATE.

* SECTION 313 SUPPLIER NOTIFICATION

Ingredients above with * are subject to reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

SECTION III - PHYSICAL DATA

Boiling Range: 243 - 414 Deg. F Vapor Density: Heavier than Air.
Evap. Rate: 0.29 x n-Butyl Acetate Liquid Density: Lighter than Water.
Volatiles volume: 54.7 % Wgt per gallon: 8.27 Pounds.
Appearance: CLEAR
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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: Flash Point: 87 F SETA LEL : 1.3 %

-EXTINGUISHING MEDIA:

FOAM, CO2, OR DRY CHEMICAL

-SPECIAL FIREFIGHTING PROCEDURES:

WATER MAY BE USED TO KEEP EXPOSED CONTAINERS COOL, AND TO KEEP
FLAMMABLE STRUCTURES WET

DO NOT ENTER FIRE AREA WITHOUT PROPER PROTECTION BECAUSE
HAZARDOUS DECOMPOSITION PRODUCTS MAY BE PRESENT. (SEE VI)

-UNUSUAL FIRE & EXPLOSION HAZARDS:

WATER PRESSURE MAY SPREAD A FLAMMABLE LIQUID FIRE.
SEALED CONTAINERS MAY EXPLODE IF OVERHEATED.

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SECTION V - HEALTH HAZARD DATA

-PERMISSIBLE EXPOSURE LEVEL:

IF PEL'S ARE KNOWN, THEY ARE LISTED IN SECT. II
W A R N I N G CARE MUST BE TAKEN NOT TO EXCEED THE EXPOSURE
LIMIT FOR THE LOWEST TLV SHOWN IN SECTION II. WHEN IN DOUBT,
WEAR AN APPROVED RESPIRATOR AND ORDER AIR SAMPLING TESTS.
(SEE SECTION VIII)

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SECTION V - HEALTH HAZARD DATA (cont.)

-EFFECTS OF OVEREXPOSURE:

OVEREXPOSURE MAY PRODUCE VARIOUS EFFECTS, INCLUDING:

1-ACUTE TOXICITY, RESULTING IN HEADACHE, DIZZINESS, NAUSEA, AND LOSS OF CONSCIOUSNESS.

2-SEVERE EYE IRRITATION POSSIBLY RESULTING IN PERMANENT DAMAGE.

3-IRRITATED MUCOUS MEMBRANES.

4-VOMITING DUE TO INGESTION.

5-DEFATTING AND DRYING OF THE SKIN.

6-SENSITIZATION AFTER REPEATED CONTACT.

-FIRST AID:

--EYE CONTACT-FLUSH WITH PLENTY OF CLEAN LUKEWARM LOW PRESSURE WATER FOR 15 MIN., OCCASIONALLY LIFTING EYELIDS OPEN. GET MEDICAL ATTENTION.

--INHALATION-REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION. KEEP VICTOM WARM AND COMFORTABLE. NEVER GIVE AN UNCONSCIOUS PERSON LIQUIDS.

--INGESTION-IF SWALLOWED, CALL PHYSICIAN IMMEDIATELY. ONLY INDUCE VOMITING ON INSTRUCTIONS OF PHYSICIAN. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. NEVER GIVE ANYTHING BY MOUTH TO UNCONSCIOUS PERSON.

--SKIN CONTACT-FLUSH WITH WATER WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. FOLLOW BY WASHING WITH SOAP AND WATER. DO NOT REUSE CONTAMINATED CLOTHING OR SHOES. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION.

SECTION VI - REACTIVITY DATA

STABILITY: [] Unstable [x] Stable

HAZARDOUS POLYMERIZATION: [] May occur [x] Will not occur

-INCOMPATIBILITY:

MAY BE INCOMPATIBLE WITH OXIDIZING AGENTS AND STRONG ALKALIES.

-CONDITIONS TO AVOID:

AVOID HEAT, SPARKS, OPEN FLAMES, AND INCOMPATIBILITIES ABOVE HIGH TEMPERATURE, STRONG OXIDIZING CONDITIONS, EXTENDED CONTACT WITH AIR/OXYGEN.

-HAZARDOUS DECOMPOSITION PRODUCTS:

INCOMPLETE COMBUSTION FOR PRODUCTS LIKE THIS MAY GENERATE HIGHLY POISONOUS CARBON MONOXIDE AND OTHER TOXIC GASES.

SECTION VII - SPILL OR LEAK PROCEDURES

-STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

WARNING - FLAMMABLE. ELIMINATE ALL IGNITION SOURCES.

HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING.

SOAK UP WITH AN ABSORBENT AND PLACE IN NON-LEAKING CONTAINERS. SEAL TIGHTLY FOR PROPER DISPOSAL.

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SECTION VII - SPILL OR LEAK PROCEDURES (cont.)

-WASTE DISPOSAL METHOD:

DISPOSAL MUST BE IN ACCORDANCE WITH CURRENT LOCAL, STATE AND
FEDERAL REGULATION. CONTACT AN APPROVED DISPOSAL FACILITY.

SECTION VIII - SPECIAL PROTECTION INFORMATION:

-RESPIRATORY PROTECTION:

PROPERLY FITTED NIOSH/MSHA APPROVED RESPIRATORS SHALL BE USED
DURING APPLICATION UNLESS AIR MONITORING DEMONSTRATES VAPOR/MIST
LEVELS ARE BELOW APPLICABLE LIMITS.

-VENTILATION:

EFFECTIVE ENGINEERING CONTROLS SHOULD BE USED WHENEVER POSSIBLE

-PROTECTIVE GLOVES:

USE RUBBER GLOVES

-EYE PROTECTION:

WEAR APPROVED SAFETY GOGGLES AND/OR FACE SHIELD.

-OTHER PROTECTIVE EQUIPMENT:

HAVE EYE BATH AND SAFETY SHOWER AVAILABLE.

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

TREAT AS A HAZARDOUS-FLAMMABLE MATERIAL.

KNOW APPLICABLE D.O.T REGULATIONS BEFORE ATTEMPTING TO
TRANSPORT THIS MATERIAL.

"WARNING: HOT ORGANIC CHEMICAL VAPORS OR MISTS ARE
SUSCEPTIBLE TO SUDDEN SPONTANEOUS COMBUSTION WHEN MIXED WITH
AIR. IGNITION MAY OCCUR AT TEMPERATURES BELOW THOSE PUBLISHED
IN THE LITERATURE AS "AUTOIGNITION" OR "IGNITION" TEMPERATURES.
IGNITION TEMPERATURES DECREASE WITH INCREASING VAPOR VOLUME AND
VAPOR/AIR CONTACT TIME AND ARE INFLUENCED BY PRESSURE CHANGES.

IGNITION MAY OCCUR AT TYPICAL ELEVATED TEMPERATURE PROCESS
CONDITIONS, ESPECIALLY IN PROCESS OPERATING UNDER VACUUM IF
SUBJECTED TO SUDDEN INGRESS OF AIR, OR OUTSIDE PROCESS
EQUIPMENT OPERATING UNDER ELEVATED PRESSURE IF SUDDEN ESCAPE OF
VAPORS OR MISTS TO THE ATMOSPHERE OCCURS. ANY PROPOSED USE OF
THIS PRODUCT IN ELEVATED TEMPERATURE PROCESSES SHOULD BE
THOROUGHLY EVALUATED TO ASSURE THAT SAFE OPERATING CONDITIONS
ARE ESTABLISHED AND MAINTAINED."

-OTHER PRECAUTIONS:

N O T E

All information and opinions in this report are based on
experience and computer programming which we believe to be
reliable. We believe that the information contained herein is
current as of the date of this report. Since the use of this
information and of these opinions and the conditions of the use
of the product are not within the control of Crawford
Laboratories, Inc. it is the user's obligation to determine the
(cont.)

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SECTION IX - SPECIAL PRECAUTIONS (cont.)

-OTHER PRECAUTIONS: (cont.)

conditions of safe use of this product.

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