

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 - 2
Product Class: PART A ! none -> extreme Fire - 1
Trade Name : FLOROTHANE MCU ULTRA 100 ! 0 ----> 4 Reactivity - 1
Product Code : R0-158 !
C.A.S. Number: SEE BELOW !

SECTION II - HAZARDOUS INGREDIENTS

| Ingredients | CAS # | Weight % | --- Exposure Limits --- | VP |
|--|------------|----------|-------------------------|-------|
| | | | ACGIH/TLV OSHA/PEL | mm HG |
| ALIPHATIC POLYISOCYANATE | 28182-81-2 | > 75 | 0.5 mg/M3 | |
| | | | S.T.E.L.= 1.0 | |
| THE ABOVE ITEM CONTAINS <0.7% HEXAMETHYLENE DIISOCYANATE | | | | |
| THE HDI CAS # IS 822-06-0. | | | | |
| THE HDI HAS A 0.005 PPM TWA AND A 0.02 PPM CEILING | | | | |
| ALIPHATIC POLYISOCYANATE | 28182-81-2 | 5-20 | 0.5 mg/M3 | |
| | | | S.T.E.L.= 1.0 | |
| The above item contains less than 0.5% | | | | |
| Hexamethylene-1,6-Diisocyanate, CAS #822-06-0 | | | | |
| Which carries a time weighted average (TWA) of 0.005 PPM | | | | |

* 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: 356 - 356 Deg. F Vapor Density: Heavier than Air.
Evap. Rate: 0.0 x n-Butyl Acetate Liquid Density: Heavier than Water.
Volatiles volume: 2.5 % Wgt per gallon: 9.24 Pounds.
Appearance: CLEAR LIQUID

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: Flash Point: >200 F SETA LEL :
-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)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA (cont.)

-UNUSUAL FIRE & EXPLOSION HAZARDS:

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

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)

-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.

SECTION VI - REACTIVITY DATA (cont.)

-CONDITIONS TO AVOID:

AVOID HEAT, SPARKS, OPEN FLAMES, AND INCOMPATIBILITIES ABOVE

-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.

-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.

BECAUSE THIS PRODUCT CONTAINS AILPHATIC POLYISOCYANATE,
AN AIR SUPPLIED RESPIRATOR IS REQUIRED WHEN THE AIRBORNE
ISOCYANATE CONCENTRATIONS ARE UNKNOWN OR WHEN THEY EXCEED
0.005 PPM

-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

(cont.)

=====

SECTION IX - SPECIAL PRECAUTIONS (cont.)

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: (cont.)

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 conditions of safe use of this product.

Crawford Laboratories Inc. makes no warranty, expressed or implied, as to the accuracy of the information and opinions, and assumes no responsibility for any damage to person, property or business arising from such use.

text01