

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 - 2
 Product Class: FLOROTHANE CR ESD 250 ! none -> extreme Fire - 2
 Trade Name : PART C ESD COMPONENT ! 0 ---> 4 Reactivity - 1
 Product Code : R8-089 !
 C.A.S. Number: SEE BELOW !

SECTION II - HAZARDOUS INGREDIENTS

| Ingredients | CAS # | Weight % | Exposure Limits | | VP mm HG |
|---|-----------|----------|-----------------|----------|----------|
| | | | ACGIH/TLV | OSHA/PEL | |
| PCBTF | 98-56-6 | 50-75 | Undetermined | | |
| CORPORATE EXPOSURE LIMIT FOR THIS ITEM IS 25 PPM 8 HR TWA | | | | | |
| METHYL n-AMYL KETONE | 110-43-0 | 5-20 | 50 ppm | 100 | 2.1 |
| INORGANIC PIGMENT | SEE BELOW | 20-50 | 0.05 mg/M3 | | |

This pigment contains Crystalline Silica, CAS 14808-90-7
 Dry Crystalline Silica has Carconogenic effects: Classified
 + (Proven.) by NIOSH [SILICA, CRYSTALLINE QUARTZ]. Classified
 A2 (Suspected for human.) by ACGIH, 2A (Probable for human.)
 by IARC [SILICA, CRYSTALLINE - QUARTZ.]
 The Crystalline Silica is wetted in the coating, however,
 when sanding or grinding onto the dried coating a MSHA/NIOSH

approved respirator or equivalent shall be worn to prevent respiration of the dust.

* SECTION 313 SUPPLIER NOTIFICATION

Ingredients with * above 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.

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SECTION III - PHYSICAL DATA

| | |
|------------------------------------|-------------------------------------|
| Boiling Range: 282 - 304 Deg. F | Vapor Density: Heavier than Air. |
| Evap. Rate: 0.05 x n-Butyl Acetate | Liquid Density: Heavier than Water. |
| Volatiles volume: 85.2 % | Wgt per gallon: 13.31 Pounds. |
| Appearance: GREY LIQUID | |

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: Flash Point: 102 F tcc LEL : 0.9 %

-EXTINGUISHING MEDIA:

FOAM, CO2, OR DRY CHEMICAL

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).

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 COMBUSTIBLE LIQUID FIRE.

SEALED CONTAINERS MAY EXPLODE IF OVERHEATED.

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 SECTION II

W A R N I N G : CARE MUST BE TAKEN TO ASSURE THAT THE

LOWEST OF THE EXPOSURE LIMITS SET FORTH IN SECTION II
IS NOT EXCEEDED. WHEN IN DOUBT - WEAR AN APPROVED RESPIRATOR,
AND ORDER AIR SAMPLING TESTS. (SEE SECTION VIII)
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, WHICH MAY RESULT IN
IRRITATION AND DERMATITIS.

6-SENSITIZATION AFTER REPEATED CONTACT.

BREATHING HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM
DEPRESSION AND LIVER CHANGES

PROLONGED INGESTION MAY CAUSE LIVER AND KIDNEY DAMAGE

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(cont.)

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SECTION V - HEALTH HAZARD DATA (cont.)

-EFFECTS OF OVEREXPOSURE: (cont.)

-FIRST AID:

--EYE CONTACT-FLUSH WITH PLENTY OF FRESH WATER FOR 15 MINUTES WHILE HOLDING 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 VICTIM WARM AND COMFORTABLE. NEVER GIVE AN UNCONSCIOUS PERSON LIQUIDS.

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

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

--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.

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SECTION VI - REACTIVITY DATA

STABLITY: [] Unstable [x] Stable

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

-INCOMPATABILITY:

MAY BE INCOMPATIBLE WITH STRONG OXIDIZING AGENTS AND STRONG ALKALIES.

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SECTION VI - REACTIVITY DATA (cont.)

-CONDITIONS TO AVOID:

AVOID HEAT, SPARKS, OPEN FLAMES, AND INCOMPATIBILITIES ABOVE.
ALSO, AIRCRAFT TRANSPORT MUST BE IN STRICT ACCORDANCE WITH
APPLICABLE REGULATIONS.

AVOID HEAT, SPARKS, OPEN FLAMES, AND INCOMPATIBILITIES ABOVE

-HAZARDOUS DECOMPOSITION PRODUCTS:

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

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 - COMBUSTIBLE. ELIMINATE ALL IGNITION SOURCES.

HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING.

WEARING THE PROTECTIVE CLOTHING OUTLINED IN SECTION VIII,

SOAK UP WITH AN ABSORBANT AND PLACE IN NON-LEAKING

CONTAINERS. SEAL TIGHTLY FOR PROPER DISPOSAL.

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.
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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.

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.
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-PROTECTIVE GLOVES:

USE RUBBER GLOVES
USE RUBBER GLOVES

-EYE PROTECTION:

WEAR APPROVED SAFETY GOGGLES
WEAR APPROVED SAFETY GOGGLES AND/OR FACE SHIELD.

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SECTION VIII - SPECIAL PROTECTION INFORMATION: (cont.)

-OTHER PROTECTIVE EQUIPMENT:

HAVE EYE BATH AND SAFETY SHOWER AVAILABLE.

HAVE EYE BATH AND SAFETY SHOWER AVAILABLE.

SECTION IX - SPECIAL PRECAUTIONS

-PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

TREAT AS ANY HAZARDOUS-COMBUSTIBLE MATERIAL; STORE IN A COOL,
DRY PLACE IN BUILDINGS DESIGNED FOR THE STORAGE OF COMBUSTIBLE
LIQUIDS.

WARNING: HOT ORGANIC CHEMICAL VAPORS OR MISTS ARE SUSCEPTIBLE
TO SUDDEN SPONTANEOUS COMBUSTION WHEN MIXED WITH AIR.

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."

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
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-OTHER PRECAUTIONS:

NOTE

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's the user's obligation to
determine the conditions of safe use of this product.

(cont.)

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SECTION IX - SPECIAL PRECAUTIONS (cont.)

-OTHER PRECAUTIONS: (cont.)

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.

N O T E

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