

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: COLORANT ! none -> extreme Fire - 2  
 Trade Name : SMOKE BLUE UC ! 0 ---> 4 Reactivity - 0  
 Product Code : K5-018 !  
 C.A.S. Number: SEE BELOW !

SECTION II - HAZARDOUS INGREDIENTS

Ingredients	CAS #	Weight %	Exposure Limits		VP mm HG
			ACGIH/TLV	OSHA/PEL	
AROMATIC HYDROCARBON	64742-95-6	20-50	50 ppm	50	9.
ISOBUTYL ISOBUTYRATE	97-85-8	1-5	Undetermined		3.
POLYOL RESIN	PROPRIETARY	5-20	ppm		
TITANIUM DIOXIDE	13463-67-7	50-75	10 mg/M3	15	

\* 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

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Boiling Range: 298 - 344 Deg. F                      Vapor Density: Heavier than Air.  
Evap. Rate: 0.23 x n-Butyl Acetate                  Liquid Density: Heavier than Water.  
Volatiles volume: 52.8 %                              Wgt per gallon: 13.15 Pounds.  
Appearance: BLUE LIQUID    V.O.C.: 468gp1.

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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

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Flammability Class:                                      Flash Point: 116F SETA                      LEL :      0.96%

-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 COMBUSTIBLE LIQUID FIRE.  
SEALED CONTAINERS MAY EXPLODE IF OVERHEATED.

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SECTION V - HEALTH HAZARD DATA

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-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)

-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.

-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.

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SECTION VI - REACTIVITY DATA

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STABILITY: [ ] Unstable [x] Stable

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

-INCOMPATIBILITY:

MAY BE INCOMPATIBLE WITH STRONG OXIDIZING AGENTS AND STRONG  
ALKALIES.

-CONDITIONS TO AVOID:

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

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SECTION VI - REACTIVITY DATA (cont.)

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-HAZARDOUS DECOMPOSITION PRODUCTS:

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

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SECTION VII - SPILL OR LEAK PROCEDURES

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-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.

-WASTE DISPOSAL METHOD:

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

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SECTION VIII - SPECIAL PROTECTION INFORMATION:

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-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

-OTHER PROTECTIVE EQUIPMENT:

HAVE EYE BATH AND SAFETY SHOWER AVAILABLE.

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SECTION IX - SPECIAL PRECAUTIONS

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-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."

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SECTION IX - SPECIAL PRECAUTIONS (cont.)

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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. 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.