

WOLSTENHOLME INTERNATIONAL, INC. MATERIAL SAFETY DATA SHEET

009

HAZARD RATING SYSTEMS:

KEY: 0 = MINIMAL

1 = SLIGHT

2 = MODERATE

3 = SERIOUS

4 = SEVERE

NAPIM-HMIS RATING

HEALTH - 2

FLAMMABILITY - 1

REACTIVITY - 2

PERSONAL PROTECTION: SF

(CHEMICAL RESISTANT GLOVES, SAFETY GLASSES & FACE SHIELD)

THIS INFORMATION IS FOR TRAINED PERSONNEL IN: NATIONAL ASSOCIATION OF PRINTING INK MANUFACTURERS (NAPIM) HAZARD MATERIALS IDENTIFICATION SYSTEM (HMIS). THE INFORMATION ON THIS FORM IS PROPRIETARY AND IS SOLELY FOR THE USE OF OUR CUSTOMERS. THE OSHA HAZARD COMMUNICATION STANDARD 29CFR1910.1200 REQUIRES THAT THE INFORMATION CONTAINED ON THESE SHEETS BE MADE AVAILABLE TO YOUR EMPLOYEES. PLEASE INSTRUCT YOUR EMPLOYEES TO HANDLE THIS PRODUCT PROPERLY.

WOLSTENHOLME PRODUCT NUMBER: UW-7707

DATE OF PREPARATION: R2: 6/99 SUPERSEDES: 09/17/97

PREPARED BY: JAY E. BROOKS

SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME: WOLSTENHOLME INTERNATIONAL, INC., 830 HAWTHORNE LANE, WEST CHICAGO, ILLINOIS 60185-1966 U.S.A.
EMERGENCY PHONE NO.: (630) 231-7000 FAX #: (630) 231-7623 PRODUCT CLASS: ENERGY CURABLE CARBON BLACK DISPERSION
TRADE NAME: "ULTRAVIOCON" MANUFACTURER'S CODE IDENTIFICATION: UW-7707

SECTION II - HAZARDOUS INGREDIENTS

HAZARD DATA: PROPRIETARY MIXTURE: CAS #NJTSRN-6000-1009 AND #NJTSRN-6000-1008 PERCENTAGE: 65% HAZARD: YES (see Section VI AND X) EXPOSURE LIMITS: NOT ESTABLISHED CARBON BLACK: CAS #1333-86-4 PERCENTAGE: 35% OSHA PEL/ACGIH TLV = 3.5 mg/M3 TWA 8 HOURS/DAY, 40 HOURS/WEEK (THIS IS AS A DRY POWDER).

SECTION III - PHYSICAL DATA

BOILING RANGE: °F: >300°F VAPOR DENSITY: HEAVIER VS AIR LIQUID DENSITY: HEAVIER VS WATER
TYPE OF ODOR: SLIGHT ACRYLIC APPEARANCE: VISCOUS BLACK PASTE EVAPORATION RATE: SLOWER VS BUTYL ACETATE
% VOLATILE WEIGHT (VOC'S): 0-2% (Excluding Water) METHOD OF DETERMINATION: ASTM METHOD D5403-93
SPECIFIC GRAVITY: 1.23 POUNDS PER GALLON: 10.5

SECTION IV - FIRE & EXPLOSION DATA

FLAMMABILITY CLASSIFICATION: N/A FLASH POINT °F: >200°F METHOD USED: PMCC LEL: N/A EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL UNUSUAL FIRE & EXPLOSION HAZARDS: HIGH TEMPERATURES AND FIRE CONDITIONS MAY CAUSE RAPID AND UNCONTROLLED POLYMERIZATION WHICH CAN RESULT IN EXPLOSIONS AND THE VIOLENT RUPTURE OF STORAGE VESSELS. AVOID THE USE OF A STREAM OF WATER TO CONTROL FIRES SINCE FROTHING CAN OCCUR. SPECIAL FIREFIGHTING PROCEDURES: REMOVE ALL IGNITION SOURCES. WEAR SELF CONTAINED BREATHING APPARATUS AND COMPLETE PERSONAL PROTECTIVE EQUIPMENT WHEN ENTERING CONFINED AREAS.

SECTION V - REACTIVITY DATA

REACTIVITY CHARACTERIZATION: STABLE CONDITIONS TO AVOID: STORAGE >140°F, EXPOSURE TO LIGHT, LOSS OF DISSOLVED AIR, LOSS OF POLYMERIZATION INHIBITOR, CONTAMINATION WITH INCOMPATIBLE MATERIALS. HAZARDOUS POLYMERIZATION: HIGH TEMPERATURES (>140°F) AND OXYGEN DEFICIENT ATMOSPHERE REDUCE INHIBITOR EFFECTIVENESS AND MAY CAUSE POLYMERIZATION, RAISING THE TEMPERATURE AND PRESSURE, POSSIBLY RUPTURING THE CONTAINER. DO NOT BLANKET OR MIX WITH NITROGEN OR OTHER INERT GASES AS THIS RENDERS THE INHIBITOR INEFFECTIVE. MATERIALS TO AVOID: POLYMERIZATION INITIATORS INCLUDING PEROXIDES, STRONG OXIDIZING AGENTS, COPPER, COPPER ALLOYS, CARBON STEEL, IRON, RUST, NICKEL, COBALT, STRONG BASES, ULTRA VIOLET LIGHT AND/OR SUNLIGHT.

SECTION VI - HEALTH HAZARD DATA

ROUTES OF EXPOSURE: 1. INHALATION: NOT EXPECTED TO BE A HAZARD DUE TO LOW VOLATILITY UNDER STANDARD CONDITIONS. INHALATION AS MIST AND/OR VAPOR MAY CAUSE IRRITATION OF RESPIRATORY TRACT. 2. SKIN CONTACT: NO SPECIFIC INFORMATION AVAILABLE. CONTAINS MATERIALS THAT MAY CAUSE MODERATE SKIN INJURY (REDDENING AND SWELLING) AND/OR SENSITIZATION. PROLONGED CONTACT OR REPEATED EXPOSURE MAY CAUSE BLISTER FORMATIONS (BURNS). SINCE IRRITATION MAY NOT OCCUR IMMEDIATELY CONTACT CAN GO UNNOTICED. 2a. SKIN ABSORPTION: NO SPECIFIC INFORMATION AVAILABLE. CONTAINS MATERIALS THAT MIGHT BE SLIGHTLY TOXIC. 3. EYES: MODERATE IRRITANT. CAN CAUSE BURNING SENSATION, TEARING, SWELLING, AND REDNESS. INJURY MAY PERSIST FOR SEVERAL DAYS. 4. INGESTION: MAY IRRITATE THE MOUTH, THROAT, AND GASTROINTESTINAL TRACT. 5. AGGRAVATION OF EXISTING CONDITIONS; INDIVIDUALS WITH PRE-EXISTING EYE AND SKIN DISORDERS CAN BE AT GREATER RISK. THOSE KNOWN TO BE SENSITIZED TO ACRYLATES SHOULD AVOID ALL EXPOSURE TO THIS PRODUCT.

EMERGENCY FIRST AID PROCEDURES: 1. EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES AND SEEK MEDICAL ATTENTION. 2. SKIN CONTACT: REMOVE CONTAMINATED CLOTHING AND WASH CONTACT AREA WITH SOAP AND WATER FOR 15 MINUTES AND SEEK MEDICAL ATTENTION. PARTICULAR ATTENTION SHOULD BE PAID TO HAIR, NOSE, EARS AND OTHER AREAS NOT EASILY CLEANED. WASH CONTAMINATED CLOTHING THOROUGHLY BEFORE RE-USING. 3. INGESTION: IF APPRECIABLE QUANTITIES ARE SWALLOWED, SEEK MEDICAL ATTENTION. DO NOT INDUCE VOMITING, SEEK MEDICAL ATTENTION IMMEDIATELY. 4. INHALATION: IN CASE OF EXPOSURE TO A HIGH CONCENTRATION OF VAPOR OR MIST, REMOVE PERSON TO FRESH AIR. IF BREATHING IS DIFFICULT, SEEK MEDICAL ATTENTION. IF BREATHING IS STOPPED APPLY ARTIFICIAL RESPIRATION AND ADMINISTER OXYGEN, SEEK MEDICAL ATTENTION.

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RESPONSE TO SPILLS: PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN. SEE PERSONAL PROTECTION SECTION FOR PPE REQUIREMENTS. REMOVE ALL IGNITION SOURCES, AS SPILLED MATERIAL MAY POLYMERIZE. MOVE LEAKING CONTAINERS TO VENTILATED AREA. STOP DISCHARGE, IF IT CAN BE PERFORMED SAFELY AND CONTAIN MATERIAL. PLACE IN SUITABLE CONTAINER FOR DISPOSAL. FLOOR MAY BE SLIPPERY, USE CARE TO AVOID FALLING. VENTILATE CONFINED SPACES OR OTHER POORLY VENTILATED AREAS. KEEP PRODUCT AWAY FROM SEWERS BY DIKING. PREVENT ENTRY INTO SEWERS AND WATERWAYS. WASTE DISPOSAL METHOD: IF DISCARDED IN ITS ORIGINAL UNUSED FORM, THIS PRODUCT DOES NOT EXHIBIT THE CHARACTERISTICS OF A RCRA HAZARDOUS WASTE AS DEFINED UNDER 40CFR261. WASTE MATERIALS SHOULD BE DUMPED OR BURIED IN AN APPROVED LANDFILL, OR INCINERATED IN A SUITABLE COMBUSTION CHAMBER. DISPOSAL MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. OF THE METHODS OF DISPOSAL CURRENTLY AVAILABLE, IT IS RECOMMENDED THAT AN ALTERNATIVE BE SELECTED ACCORDING TO THE FOLLOWING ORDER OF PREFERENCE, BASED UPON ENVIRONMENTAL ACCEPTABILITY: 1. RECYCLE OR REWORK IF AT ALL FEASIBLE. 2. INCINERATE AT AN AUTHORIZED FACILITY OR 3. TREAT AT AN ACCEPTABLE WASTE TREATMENT FACILITY.

SECTION VIII - SPECIAL PROTECTION/PERSONAL PROTECTION EQUIPMENT INFORMATION

VENTILATION: ADEQUATE VENTILATION MUST BE PROVIDED TO AVOID MIST CONCENTRATION BELOW PEL.

PROTECTIVE GLOVES: IMPERVIOUS GLOVES (NEOPRENE), A COMBINATION BARRIER CREAM, APPLIED BEFORE EXPOSURE, AND GLOVES ARE RECOMMENDED. DO NOT APPLY CREAM AFTER EXPOSURE.

RESPIRATORY PROTECTION: WHEN EXPOSED TO AEROSOLS OR VAPORS, USE FULL FACE ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH PARTICULATE PRE-FILTER. IN EMERGENCY SITUATIONS, OR WHEN USED IN A CONFINED SPACE, USE SELF-CONTAINED BREATHING APPARATUS OR OTHER AIR SUPPLIED FULL FACE RESPIRATOR.

EYE PROTECTION: PLASTIC FACE SHIELD (ANSI Z87.1 OR APPROVED EQUIVALENT), SAFETY GLASSES OR GOGGLES MAY BE WORN.

OTHER PROTECTIVE EQUIPMENT: USE "GOOD MANUFACTURING PRACTICES" WHEN USING THESE MATERIALS. SAFETY GLASSES, WORK GLOVES, AND "GOOD" WORK (WITH LIMITED SKIN EXPOSURE) ARE RECOMMENDED.

DEFINITIONS: OSHA: U.S. OCCUPATIONAL SAFETY AND HEALTH ASSOCIATION. ACGIH: AMERICAN CONFERENCE OF GOVERNMENT INDUSTRIAL HYGIENISTS. NIOSH: U.S. NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH. MSHA: MINE SAFETY AND HEALTH ADMINISTRATION. ASTM: AMERICAN STANDARD TESTING METHOD. PEL: PERMISSIBLE EXPOSURE LIMIT. TLV: THRESHOLD LIMIT VALUE. TWA: TIME WEIGHTED AVERAGE. PPM: PARTS PER MILLION. VOC: VOLATILE ORGANIC COMPOUND.

SECTION IX - SPECIAL PRECAUTIONS

HANDLING & STORING: STORE ONLY IN SEALED CONTAINERS, AWAY FROM HEAT, OPEN FLAME, OR OXIDIZING MATERIALS. KEEP CONTAINERS CLOSED WHEN NOT IN USE & DO NOT TRANSFER TO UNMARKED CONTAINERS. FIRE EXTINGUISHERS MUST BE KEPT READILY AVAILABLE AND PERSONNEL SHOULD BE TRAINED IN THEIR PROPER USE. TO ENSURE OPTIMAL PRODUCT STABILITY, STORE BETWEEN 40°F AND 80°F. PREVENT FROM FREEZING. CONTAINER USE PROCEDURE: CONTAINERS SHOULD BE STORED AWAY FROM HEAT TO PREVENT POLYMERIZATION, CONTAINERS OPENED PREVIOUSLY SHOULD NOT BE BLANKETED WITH NITROGEN OR OTHER INERT GAS. **EMPTY CONTAINER PRECAUTIONS:** THIS CONTAINER CAN BE HAZARDOUS WHEN EMPTY BECAUSE IT CAN RETAIN PRODUCT RESIDUES. THEREFORE, DO NOT REUSE CONTAINER FOR FOOD, CLOTHING OR PRODUCTS FOR HUMAN OR ANIMAL CONSUMPTION OR WHERE SKIN CONTACT MAY OCCUR. **OTHER PRECAUTIONS:** DO NOT TRANSFER INTO UNMARKED CONTAINERS. FOLLOW DOT REGULATIONS DURING TRANSPORT. AS WITH ANY INDUSTRIAL PRODUCT, PROPER PERSONAL HYGIENE PROCEDURES SHOULD BE FOLLOWED AT ALL TIMES.

SECTION X - REGULATORY INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT): DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT DOT HAZARD CLASS: NON REGULATED DOT LABEL: NOT APPLICABLE DOT IDENTIFICATION: NOT APPLICABLE

U.S. TOXIC SUBSTANCES CONTROL ACT (TSCA) AND CANADIAN DOMESTIC SUBSTANCES LIST (DSL): OUR BLACK BASES, AS SUCH, ARE NOT LISTED IN THE TSCA INVENTORY AND THE CANADIAN DSL, HOWEVER, TO THE BEST OF OUR KNOWLEDGE ALL OF OUR RAW MATERIALS OR THEIR BASIC CHEMICALS ARE, THEREFORE, WE ARE IN COMPLIANCE.

U.S. CLEAN AIR ACT, 1990: OUR BLACK BASES DO NOT CONTAIN CLASS I OR CLASS II OZONE DEPLETING CHEMICALS AS DEFINED UNDER THE 1990 AMENDMENTS TO THE ACT.

CALIFORNIA PROPOSITION 65: OUR BLACK BASES DO NOT CONTAIN ANY CHEMICALS REPORTABLE UNDER CAL PROPOSITION 65.

U.S. SARA TITLE III - SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA): SECTION 302 (40CFR 355.30): THIS PRODUCT DOES NOT CONTAIN SUBSTANCES IDENTIFIED UNDER SECTION 302 AS EXTREMELY HAZARDOUS. SECTION 311/312 (40CFR 370): THIS PRODUCT IS SUBJECT TO EPA'S "HAZARDOUS CHEMICAL REPORTING AND COMMUNITY RIGHT-TO-KNOW" AND THE NEED TO ANNUALLY SUBMIT TIER 1 AND/OR TIER II REPORTS IF PRESENT AT A FACILITY AT ANY ONE TIME IN AMOUNTS EQUAL TO OR GREATER THAN 10,000 LBS. THE PHYSICAL AND HEALTH PROPERTIES FOR THIS PRODUCT ARE AS FOLLOWS: FIRE HAZARD: NO SUDDEN RELEASE OF PRESSURE HAZARD: NO REACTIVITY HAZARD: YES IMMEDIATE (ACUTE) HEALTH HAZARD: YES DELAYED (CHRONIC) HEALTH HAZARD: YES SECTION 313 (40CFR 372): TO THE BEST OF OUR KNOWLEDGE OUR BLACK BASES DO NOT CONTAIN ANY OF THE CHEMICALS LISTED IN SECTION 313 HIGHER THAN THE REPORTABLE DE MINIMIS QUANTITIES.

COALITION OF NORTHEASTERN GOVERNORS (CONEG): FROM TIME TO TIME WE HAVE AN ANALYSIS* PERFORMED ON ONE OF OUR BLACK BASES & THEY CONFIRM TYPICAL TRACE AMOUNTS OF THE NAMED HEAVY METALS DO NOT EXCEED 2.0 PPM IN TOTAL. THIS IS WAY BELOW THE 100 PPM EFFECTIVE JAN.1994. *IF YOU WOULD LIKE A COPY OF OUR MOST RECENT ANALYSIS, PLEASE CONTACT US.

CHEMICAL ABSTRACT SERVICE (CAS) REGISTRY #: CONTAINS PROPRIETARY MIXTURES: #NJTSRN-6000-1009 AND #NJTSRN-6000-1008 PLUS CARBON BLACK: CAS #1333-86-4.

THE INFORMATION AND RECOMMENDATIONS CONTAINED HERE ARE ACCURATE AND RELIABLE TO THE BEST OF OUR KNOWLEDGE AS OF THIS DATE. WOLSTENHOLME INTERNATIONAL, INC. DOES NOT WARRANT OR GUARANTEE THEIR ACCURACY OR RELIABILITY. THIS MSDS WAS PREPARED AND IS TO BE USED ONLY FOR THIS PRODUCT. IF THIS PRODUCT IS USED AS A COMPONENT IN ANOTHER PRODUCT, THE MSDS INFORMATION MAY NOT BE APPLICABLE. THE CONDITIONS OR METHODS OF HANDLING, STORAGE, USE AND DISPOSAL OF THIS PRODUCT ARE BEYOND OUR CONTROL AND MAY BE BEYOND OUR KNOWLEDGE. FOR THIS AND OTHER REASONS, WOLSTENHOLME INTERNATIONAL, INC. DOES NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIMS LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT. THIS MSDS HAS BEEN PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).