

MSDS (Material Safety Data Sheet)

EMERGENCY TELEPHONE NO.: 800-424-9300

PRODUCT NAME: UNIVERSAL'S **Fire-Kote 100™** Class A Coating
CHEMICAL FAMILY: Aqueous based intumescent flame retardant.

SECTION I - PRODUCT INFORMATION

MANUFACTURER'S NAME:

UNIVERSAL FIRE SHIELD

6311 Washington St., Unit N

Denver, Colorado 80216 USA

TELEPHONE # FOR INFORMATION: 303-853-0204

SECTION II - HAZARDOUS COMPONENTS

COMPONENT		ACGIH	OSHA
<u>CAS REGISTRY NO.</u>	<u>WT. %</u>	<u>TLV</u>	<u>PRL</u>
Phosphoric Acid 00764-38-2	< 1.8%	500 ppm TWA	400 ppm TWA
Methanol CAS#67-56-1	< 0.5%	200 ppm TWA 250 ppm STEL	200 ppm TWA
Formaldehyde	< 0.9%	0.3 ppm ceiling 2 ppm	0.75 ppm 8 hr. TWA 15 min. STEL

SECTION III - PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Blue tint, odor during application only.

MOLECULAR WEIGHT: Not Applicable.

BOILING POINT: (DEGREES FAHRENHEIT): 212 - Not accurate: mixture of components.

MELTING POINT: (DEGREES FAHRENHEIT): Not Applicable.

VAPOR PRESSURE: (mm of Mercury): Not Determined.

SPECIFIC GRAVITY (WATER=1): 1.6

VAPOR DENSITY (AIR=1): Not determined.

PERCENT VOLATILE: (BY WEIGHT): 35.0% max. (water content only)

pH: 5.0 - 6.0

SOLUBILITY IN WATER: Complete with heat. Has insoluble characteristic when cool.

EVAPORATION RATE: (BUTYL ACETATE=1): Not Determined.

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (DEGREES FAHRENHEIT: PENSKY-MARTENS CLOSED CUP): None to boiling.

FIRE EXTINGUISHING MEDIA: Not combustible. Use water spray, fog, foam, dry chemicals, CO₂, or other agents as appropriate for material in surrounding fire.

FLAMMABLE LIMITS (PERCENT BY VOLUME): Not applicable.

SPECIAL FIRE FIGHTING PROCEDURES AND EQUIPMENT: Not combustible. Use safety equipment and clothing which is suitable for materials in surrounding fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: May liberate flammable hydrogen gas after long term storage of liquid in metal containers. Store liquid only in stainless steel, plastic or glass vessels.

HAZARDOUS COMBUSTION PRODUCTS: Combustion products can include carbon dioxide, carbon monoxide, oxides of phosphorus and traces of ammonia.

SECTION V - REACTIVITY DATA

STABILITY: STABLE X UNSTABLE _____

CONDITIONS TO AVOID: Storage of "liquid" in containers other than plastic, stain-less steel or glass.

Contamination with strong oxidizers, strong alkali or strong acids.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, alkalis, or acids. When in liquid state the product slowly reacts with some common metals causing flammable hydrogen gas to be emitted.

HAZARDOUS DECOMPOSITION PRODUCTS: Not applicable.

HAZARDOUS POLYMERIZATION: Will Occur _____ Will Not Occur X

SECTION VI - HEALTH HAZARD INFORMATION

EXPOSURE FROM ROUTINE USE: No evidence of adverse effects from available information.

EFFECTS OF OVEREXPOSURE: EYES. . . Direct contact or prolonged exposure to mist may cause redness and pain. **NOSE.** . . Breathing of heavy concentrations of mists may cause sinus irritation and dizziness. **MOUTH.** . .

Ingestion may cause nausea. **SKIN.** . . Prolonged contact may cause reddening of effected area.

PROBABLE ROUTES OF EXPOSURE: Skin, eyes, inhalation, and ingestion.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: Immediately flush eyes with water for at least 15 min. including underneath eyelids. Consult a physician if irritation persists.

INHALATION: Remove to fresh air immediately. Use adequate ventilation.

INGESTION: Substance exhibits very low toxicity. Consult a physician if upset stomach or nausea occur.

SECTION VII - TOXICITY DATA

ORAL: Acute Oral Toxicity: Ld50 (rat) > 5000 mg/kg

DERMAL: Not established, not expected to be harmful. May be irritating with continual contact.

INHALATION: Not established. Not expected to be harmful. If necessary, use respirator if adequate ventilation is not possible to keep exposure to particulate matter at a minimum in heavy mist areas when spraying.

OTHER PERTINENT DATA: Not applicable.

SECTION VIII - SPECIAL PROTECTION INFORMATION

PERSONAL PROTECTION EQUIPMENT

PROTECTIVE GLOVES: Wear impervious gloves as necessary to avoid excessive skin contact: i.e. rubber or neoprene.

EYE PROTECTION: Protective glasses or goggles in heavy mist areas.

RESPIRATORY PROTECTION (SPECIFY TYPE): For heavy mist exposure use a NIOSH/MSHA approved respirator suitable for use with organic vapors if proper ventilation can not be provided.

OTHER PROTECTIVE EQUIPMENT: Adequate clothing to minimize direct contact with skin.

VENTILATION

LOCAL EXHAUST: Use exhaust fans if necessary to control mist or vapor.

MECHANICAL (GENERAL): Normal room ventilation of fans.

SPECIAL: Not applicable.

SECTION IX - SPILL, LEAK, AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Confine spilled material and absorb on sand, sawdust, earth or other available solids. Sweep and place in a suitable container. Flush with water and rinse minor spills into sewer if permitted by Federal, State and local regulations.

WASTE DISPOSAL METHODS: Incinerate or bury in a suitable land fill where permitted by appropriate government regulations.

CLEAN WATER ACT REQUIREMENTS: Section 311 of the Clean Water Act lists phosphorus as a hazardous substance which, if discharged into or upon water, will present an imminent and substantial danger to public health and welfare. Spills of 5000 pounds or more must be reported to the National Response Center @ 1-800-424-8802.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) REQUIREMENTS: No applicable information found.

SECTION X - REGULATORY INFORMATION

FDA: No applicable information found.

USDA: No applicable information found.

CPSC: No applicable information found.

TSCA: No applicable information found.

DOT: No applicable information found.

EPA: No applicable information found.

PROPER SHIPPING NAME: Not applicable.

HAZARDOUS CLASS: Not applicable.

LABEL REQUIRED: Not applicable.

IDENTIFICATION NUMBER: Not applicable.

OTHER PERTINENT INFORMATION: Not applicable.

SECTION XI - SPECIAL PRECAUTIONS AND COMMENTS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep away from eyes. Avoid prolonged contact with skin. Wash exposed skin with soap and water. Avoid breathing of mist.

OTHER PRECAUTIONS: Not applicable.

REGISTRATION/CERTIFICATIONS: Not applicable.

EFFECTIVE DATE: April 1, 2003 REVISED: 12/13/04

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