DOUGLAS PRODUCTS & PACKAGING

1550 E. Old 210 Hwy., Liberty, Missouri (816) 781-4250

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

MANUFACTURER'S NAME:Douglas Products & Packaging ADDRESS:1550 E. Old 210 Hwy., Liberty, Missouri 64068 EMERGENCY PHONE NUMBER:1-800-424-9300 REGULAR PHONE NUMBER:(816) 781-4250 FAX NUMBER:(816) 781-1043

VAPO-CIDE®

DATE PREPARED: February 9, 1999

II. HAZARDOUS INGREDIENTS

MATERIAL OR COMPONENT	CAS#	%	OSHA PEL TLV HAZARD DATA
Dichlorvos & Relates	62-73-7	5.00	l(s)mg/m3-OSHA
Compounds			lppm 0.9(s)mg/m3-ACGIH
			Industrial Recommendation
Xylene Range Solvent	64742-95-6	95.00	50ppm
Trimethyl Benzene	25551-13-7	44.30	25ppm 125mg/m3*-OSHA/ACGIH
Contains 1,2,4	95-63-6	30.40	
Trimethyl Benzene			
Xylene	1330-20-7	2.90	100ppm 434mg/m3*-OSHA/ACGIH
			150ppm 655mg/m3*-OSHA/ACGIH
Cumene	98-82-8	1.40	50ppm 245(s)mg/m3*-OSHA/ACGIH
Ethyl Benzene	100-41-4	.50	100ppm 435mg/m3*-OSHA/ACGIH
			125ppm 545mg/m3*-OSHA/ACGIH

mg/m3 = milligrams per cubic feet

*OSHA and ACGIH vary slightly by 1 to 4 mg/m3. This listed limit is the OSHA value.

(s) indicates that significant amounts can be absorbed into the body through skin, mucous membranes and eyes. An employee's skin exposure must be prevented or reduced through the use of gloves, protective clothing, eye protection, other protective equipment, and engineering controls or work practive.

This product contains the toxic chemicals Dichlorvos, Xylene, 1,2,4 Trimethyl Benzene and possibly Cumene and Ethyl Benzene in sufficient quantities to be subject to the reporting requirement of section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and of 40 CFR 372.

HMIS:Health-4, Flammability-2, Reactivity-1, Personal Protection-B

III. PHYSICAL DATA

BOILING POINT:176 Degrees F. - 340 Degrees F. MELTING POINT:N/A SPECIFIC GRAVITY:.894 VAPOR PRESSURE:5.1 mm Hg VAPOR DENSITY:Heavier Than Air SOLUB. IN WATER:Insoluble EVAPORATION RATE:N/A APPEARANCE AND COLOR:Colorless to Amber, Aromatic solvent odor.

IV. FIRE AND EXPLOSION DATA

FLASH POINT:108 Degrees F.

FLAMMABLE LIMITS:Lower-1.9%, Upper-12.6%

EXTINGUISHING MEDIA: Dry Chemical or Foam.

SPECIAL FIRE FIGHTING PROCEDURES:Fight fire upwind. Dike fire area to prevent runoff. Use as little water as possible. Use water to keep containers cool since they may explode, If a leak or spill has not ignited, use a water spray to disperse the vapors. Water spray may be used to flush spills away from fire exposures. Do not put out fire with water. Stop source of fuel.

UNUSUAL FIRE AND EXPLOSION HAZARDS:Fumes from fire are hazardous and contain toxic oxides of phosphorus, corrosive hydrogen chloride, carbon monoxide, carbon dioxide and various hydrocarbons. Vapors from the solvent will travel along ground and be ignited by an ignition source a distance away. Never use torch on or near drum because product or empty drum may ignite. Metal containers should be grounded during transfer. Eliminate ignition sources while fogging.

V. HEALTH HAZARD INFORMATION

ROUTES OF ENTRY:Inhalation: Yes, Skin: Yes, Ingestion: Yes HEALTH HAZARDS:See Below EFFECTS OF EXPOSURE:ACUTE-Acute cholinesterase depression may be evidenced by headache, nausea, vomiting, diarrhea, abdominal cramps, excessive sweating, salivation and tearing, constricted pupils, blurred vision, tightness in chest, weakness, muscle twitching and confusion. In extreme cases, unconscousness, convulsions, severe respiratory depression and death may occur. CHRONIC-Repeated exposures to small doses of DDVP and other organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed.

V. HEALTH HAZARD INFORMATION

EMERGENCY AND FIRST AID:INHALATION-Move victim to fresh air. Rescuer should wear proper protective equipment. Establish and maintain airway. SKIN-Immediately remove contaminated clothing and wash skin with soap and plenty of water. Allow clothes to aerate. Place clothes in closed container until laundered. Inform laundry of hazardous properties. If symptoms occur or skin irritaion persists, get medical attention. EYES-Flush with large amounts of water. Get medical attention. If symptoms of poisoning occur, treat as for inhalation exposure. INGESTION-DO NOT INDUCE VOMITING. Aspiration of product into lungs due to vomiting can cause chemical pneumonia which can be fatal. Get immediate medical attention for evacuation of stomach contents. **CARCINOGINICITY:**NTP-No, IARC-2B, OSHA-No

VI. REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:Stable under normal temperatures and pressure.

INCOMPATIBILITY:Will attack steel and some forms of rubber, plastics and coatings. Strong caustic, strong acids, strong oxidizers, heat and ignition sources.

HAZARDOUS DECOMPOSITION PRODUCTS:N/A

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:N/A

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN MATERIAL IS RELEASED OR SPILLED: Avoid contact with skin or eyes. Do not breathe fumes. Eliminate ignition sources. Ventilate closed area before entering. Wear pressure demand SCBA or its equivalent. For small spills, absorb with inert material and shovel into open head drum. For large spills dike area to prevent spill from spreading. Pump into salvage tank. Treat with a dilute alkali or 5% ammonia and detergent. Absorb water and dispose as a hazardous waste. Prevent liquid from entering sewers, watercourses, or low areas. If spill exceeds 26.8 gallons (contains a reportable quantity of DDVP) and escapes into the environment, the spill must be reported as required by state and federal regulations.

WASTE DISPOSAL METHOD:Consult local or state disposal authorities concerning proper disposal methods. Material is an ignitable hazardous waste and an acute hazardous waste.

VIII. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS: Provide as is helpful to keep air concentration below PEL.
RESPIRATORY PROTECTION: If PEL is exceeded use NIOSH/MSHA air-purifying respirator.
EYE: Splash or Full Face Respirator.
GLOVES: Natural Rubber.
OTHER CLOTHING AND EQUIPMENT: Protective work clothing.

IX. SPECIAL PRECAUTIONS

PRECAUTIONARY STATEMENTS:Wash thoroughly after handling and before eating and smoking. KEEP OUT OF REACH OF CHILDREN. Keep out of lakes, streams or ponds. This product is TOXIC to fish.

OTHER HANDLING AND STORAGE REQUIREMENTS:Do not contaminate water, food or feed by storage or handling. Keep containers closed when not in use. Keep away from heat or an open flame. Foggers must be cleaned after each use to avoid excessive corrosion. Storage drums should have a pigmented phenolic lining. Polypropylene tanks can be used. Certain types of PVC tubing can be used. Nozzles should be stainless steel or a tested plastic. No smoking, eating or drinking where material is used or stored. There is an electrostatic accumulation hazard. Use proper grounding procedures. Store in a secure, dry, well ventilated room, building or covered area. Not for use or storage in the home. Segregate from incompatible material listed in section 6.