


# Material Safety Data Sheet

DOT	HCS Risk Phrases	Protective Clothing
RQ Organophosphorus pesticide, Liquid, Toxic, N.O.S. (Dichlorvos), 6.1, UN3018, PGIII	HCS Class: Poisonous if swallowed, inhaled or absorbed through the skin and eyes. Insecticide Signal Word: Danger	

## Section 1: Product Identification and Uses

Common/Trade name	<b>Vapona® Concentrate Insecticide</b> <b>EPA Reg. No.: 4691-130</b>	CI#	Not available
Synonyms	Not available	TSCA	No products found
Chemical name	Not applicable	CAS#	Mixture
Chemical formula	Not applicable	Code	MSDS ID#: E97DC130A
Chemical family	Organophosphate ester	Molecular weight	Not available
Supplier	Boehringer Ingelheim Vetmedica, Inc. 2621 North Belt Hwy St. Joseph MO 64506-2002	Manufacturer	Amvac 4100 E Washington Blvd Los Angeles, CA 90023
Material uses	Controls flies, gnats and mosquitoes on cattle and around livestock and poultry premises		

## Section 2: Hazardous Ingredients

Name	CAS#	% by Weight	TLV/PEL	LC50 / LD 50
Dichlorvos: 2,2-dichlorovinyl dimethyl phosphate	62-73-7	40.2	1 mg/m <sup>3</sup> (skin)	Not available
Petroleum hydrocarbons	64742-94-5	50-55	PEL: 100 ppm TWA	Not available

## Section 3: First Aid Measures

Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Hazardous skin/eye contact	Corrosive, can cause irreversible eye damage or skin burns.
Slight inhalation	Harmful if inhaled. Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call poison control center or doctor for further treatment advice.
Hazardous inhalation	No additional information
Hazardous ingestion	Harmful if swallowed or absorbed through skin. If swallowed, call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person. NOTE TO PHYSICIAN: This product is a cholinesterase inhibitor. Atropine is the specific therapeutic antagonist of choice against parasympathetic nervous stimulation. If there are signs of parasympathetic stimulation, Atropine Sulfate should be injected at 10 minute intervals in doses of 1-2 milligrams until complete atropinization has

occurred. Pralidoxine chloride (2-PAM) may also be used as an effective antidote in addition to and while maintaining full atropinization. In adults, an initial dose of 1 gram of 2-PAM should be injected preferably as an infusion in 250 cc of saline over a 15-30 minute period. If this is not practical, 2-PAM may be administered slowly by intravenous injection as a 5 percent solution in water over not less than two minutes. After about an hour, a second dose of 1 gram of 2-PAM will be indicated if muscles weakness has not been relieved. For infants and children, the dose of 2-PAM is 0.25 grams. Morphine is an improper treatment. Clear chest by postural drainage. Oxygen administration may be necessary. Observe patient continuously for 48 hours. Repeated exposure to cholinesterase inhibitors may without warning cause prolonged susceptibility to very small doses of any cholinesterase inhibitor. Allow no further exposure until cholinesterase regeneration has been attained and determined by blood test. Probable mucosal damage may contraindicate the use of gastric lavage. Contains petroleum hydrocarbons – vomiting may cause aspiration pneumonia

**Section 4: Physical Data**

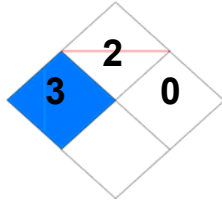
Physical state and appearance	Liquid	Odor	Aromatic
PH (1% soln/water)	Approximately 3; acidic	Taste	Not available
Odor threshold	Not available	Color	Clear amber to pink
Volatility	Not available		
Melting/Sublimation point	Not available		
Boiling/Condensation point	>300°F		
Specific gravity (Water=1)	1.08		
Vapor density (Air=1)	>5		
Vapor pressure	<2 mm Hg @ 25°C		
Water/oil dist. Coeff.	Not available		
Ionicity (surface active agent)	Not available		
Critical temperature	Not available		
Instability temperature	Not available		
Conditions of instability	Not available		
Dispersion properties	Not available		
Solubility	Not available		

<b>Section 5: Fire and Explosion Data</b>	
The product is:	Combustible
Auto-ignition temperature	Not available
Fire degradation products	Products of combustion may be inorganic acids, phosphorus compounds and chlorinated organic compounds. Vapors of the unburned product may also be hazardous. Contact with the fumes and vapors should be avoided by staying upwind and by wearing impervious clothing and positive pressure self-contained breathing apparatus.
Flash points	TCC: 144°F
Flammable limits	Not available
Fire extinguishing procedures	Small Fire: Use dry chemical, CO <sub>2</sub> , alcohol foam or water spray. Large Fire: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosion.  Special Fire Fighting Procedures: Recommend positive pressure self-contained breathing apparatus (SCBA). Wear full protective equipment.
Flammability	With sufficient heat or burning, toxic and/or noxious vapors may be emitted including hydrogen chloride and carbon monoxide. Treat as combustible liquid.
Risks of explosion	No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.

<b>Section 6: Reactivity Data</b>	
Stability	The product is stable.
Hazardous decomp. products	Products of combustion may be inorganic acids, phosphorus compounds and chlorinated organic compounds.
Degradability	Not available
Product of degradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Corrosivity	Corrosive to black iron and mild steel. In absence of moisture, non-corrosive to aluminum, nickel, hastelloy B and stainless steel (type 316).
Reactivity	DDVP will slowly react with water for form acids. Incompatible with strong oxidizers, strong acids, strong bases, heat and sources of ignition.

<b>Section 7: Toxicological Properties</b>	
Routes of entry	Absorbed through skin, eye contact, inhalation, ingestion
TLV	Not available
Toxicity for animals	LD50: Not available LC50: Not available
Environmental hazards	Highly toxic to fish, birds and other wildlife. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent areas. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur or when weather conditions favor drift from areas treated. Do not contaminate water when cleaning equipment or when disposing of equipment washwaters.
Chronic effects on humans	<p>Carcinogenic Effects: California Prop 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproduction harm, which would require a warning under the statute: dichlorvos</p> <p>Mutagenic Effects: Not available</p> <p>Teratogenic Effects: Not available</p> <p>Developmental Toxicity: Not available</p> <p>Causes lowered cholinesterase levels increasing vulnerability to cholinesterase depression. Repeated inhalation or skin contact may, without symptoms, progressively increase susceptibility to organophosphate insecticide poisoning. Chronic poisoning can cause damage to kidney or liver and may be fatal. Medical conditions generally aggravated by exposure: Pre-existing conditions with lower cholinesterase levels increase vulnerability to cholinesterase depressions such as (for plasma) genetic cholinesterase deficiency, advanced liver disease, chronic alcoholism, dermatomyositis, and (for RBC) hemolytic anemia. The substance is toxic to eyes. Repeated or prolonged exposure to this substance can cause damage to target organs.</p>
Acute effects on humans	Poisonous if swallowed, inhaled or absorbed through the skin and eyes. Rapidly absorbed through skin. Repeated inhalation or skin contact may without symptoms, progressively increase susceptibility to dichlorvos (DDVP) poisoning. Poisoning symptoms include weakness, headache, tightness in chest, blurred vision, non-reactive pinpoint pupils, salivation, sweating, nausea, vomiting, diarrhea and abdominal cramps. Corrosive, can cause eye/skin damage. May produce acute cholinesterase depression.

<b>Section 8: Preventive Measures</b>	
Waste information	Neutralize residue with dilute alkaline or ammonia (less than 5%) solution and detergent. Absorb with clay, sand or other absorbent materials. Dispose of in accordance with all City, State and Federal regulations. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the hazardous waste representative at your nearest EPA Regional office for guidance. Container disposal: Triple rinse (or equivalent), then offer for reconditioning or puncture and dispose of in a sanitary landfill or by other approved State and Local procedures.
Waste stream	Toxic to fish, birds and other wildlife.
Storage	Not for use or storage in and around the home. Do not contaminate water, food or feed by storage or disposal. Store in original container only. Store in a safe place where children and animals cannot reach the product or its diluted emulsion. Combustible, do not use, store or spill near heat or open flame. Do not store above 120°F for an extended period of time. Do not store diluted product. Protect from freezing.
Precautions	Keep out of reach of children. Do not get on skin. Do not breathe vapor. Do not contaminate food or feed products. Corrosive, do not get on skin, eyes or clothing. Wash thoroughly with soap and water after using and before smoking or eating. Do not apply directly to water. Do not contaminate water by cleaning of equipment or improper disposal of waste. Prolonged or repeated skin contact may cause allergic reaction in some individuals. Wash PPE and clothing separately from normal laundry.
Small spill and leak	Avoid any contact. Keep people away from spill. Wear impervious, protective clothing and respirator. Notify State and Federal agencies according to Spill Plan (reportable quantity 10 lbs). Dike area. Keep liquid from entering sewers, waterways or low areas. Absorb material with sawdust, shredded vermiculite, newspaper, or other commercial absorbents. Neutralize residue with alkaline solution and adhere to recommended disposal procedures.
Large spill and leak	Combustible liquid, keep away from heat and sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas, dike if needed.
Protective Clothing	Splash goggles, full protective suit or coveralls over long sleeved shirt and long pants, NIOSH approved respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor cartridge or canister with any R, P or HE prefilter, chemical resistant footwear plus socks, chemical resistant headgear for overhead exposure, chemical resistant gloves; chemical resistant apron required for mixing/loading and cleaning equipment, self-contained breathing apparatus should used to avoid inhalation of the product when concentration is unknown. Discard clothing and other absorbent material that have been drenched or heavily contaminated with this products concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

<b>Section 9: Classification</b>													
DOT	RQ Organophosphorus pesticide, Liquid, Toxic, N.O.S. (Dichlorvos), 6.1, UN3018, PGIII												
Maritime transportation	Marine pollutant												
HCS	HCS Class: Poison												
Federal and State Regulations	CERCLA: Reportable Quantity DDVP - 10 lbs												
HMIS (U.S.A.)	<table border="1" style="display: inline-table; vertical-align: top;"> <tr> <td style="background-color: #0000FF; color: white;">Health Hazard</td> <td style="text-align: center;">*</td> <td style="background-color: #0000FF; color: white;">3</td> </tr> <tr> <td style="background-color: #FF0000; color: white;">Fire Hazard</td> <td></td> <td style="background-color: #FF0000; color: white;">2</td> </tr> <tr> <td style="background-color: #FFFF00; color: black;">Reactivity</td> <td></td> <td style="background-color: #FFFF00; color: black;">0</td> </tr> <tr> <td>Personal Protection</td> <td></td> <td>J</td> </tr> </table> <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> <p>National Fire Protection Association (U.S.A.)</p>  <p style="margin-left: 100px;">Fire Hazard</p> <p style="margin-left: 100px;">Reactivity</p> <p style="margin-left: 100px;">Specific hazard</p> </div>	Health Hazard	*	3	Fire Hazard		2	Reactivity		0	Personal Protection		J
Health Hazard	*	3											
Fire Hazard		2											
Reactivity		0											
Personal Protection		J											

<b>Section 10: Protective Measures</b>	
Protective clothing	Splash goggles, full protective suit or coveralls over long sleeved shirt and long pants, NIOSH approved respirator with an organic vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor cartridge or canister with any R, P or HE prefilter, chemical resistant footwear plus socks, chemical resistant headgear for overhead exposure, chemical resistant gloves; chemical resistant apron required for mixing/loading and cleaning equipment, self-contained breathing apparatus should be used to avoid inhalation of the product when concentration is unknown. Discard clothing and other absorbent material that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.
Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work station location.

**Section 11: Other Information**

References	Not available
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Validated by Company: 3/28/05	
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**CALL 1(800) 821-7467**

**Emergency Medical: (800)530-5432**

**Chemtrec: (800)424-9300**

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