

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

Aromatic solvent (CAS 64742-94-5)	Can be absorbed through the skin.
Dichlorvos (DDVP) (CAS 62-73-7)	Can be absorbed through the skin.
Naled (CAS 300-76-5)	Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Dichlorvos (DDVP) (CAS 62-73-7)	Can be absorbed through the skin.
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US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

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Appropriate engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety glasses with side shields or tight fitting chemical goggles should be used whenever hazardous chemicals are being handled. A full face respirator should be worn whenever there is a chance of splashing or misting.

Skin protection

Hand protection Wear chemical resistant gloves (preferably nitrile)

Other

The following clothing is required: overalls or pants and long-sleeved shirt, chemical resistant gloves (preferably nitrile), chemical resistant boots. For added protection a chemical resistant apron and a full face shield are recommended. If there is a risk of splashing, misting or release the following additional PPE is required: two piece hooded chemical resistant suit with either a full face respirator or a SCBA. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions are available, use detergent and hot water. Keep and wash PPE separately.

Respiratory protection

For exposures that may exceed the TLV, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) is required. A full-face respirator or a SCBA may be required if misting or splashing are possible.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes. Avoid contact with skin. Avoid contact with clothing. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Off-white to straw yellow

Odor Sharp, pungent

Odor threshold No data available

pH Not available.

Melting point/freezing point 60 °F (15.56 °C) 15°C / 79 °F (26 °C) estimated

Initial boiling point and boiling range 320 °F (160 °C) 160°C

Flash point 150 °F (66 °C) estimated

Evaporation rate Not available

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) 0.7 % estimated

Flammability limit - upper (%) 5 % estimated

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 1.00E+01 mm Hg @ 100°F

Vapor density Heavier than air

Relative density	1.67 g/cm ³ @ 25°C/4°C (77°F/39°F)
Solubility(ies)	
Solubility (water)	Emulsifies
Solubility (solvents)	This product is soluble in aromatic hydrocarbons, chlorinated hydrocarbons, ketones, and esters approx. 100 (a.i.) at ambient temperatures
Partition coefficient (n-octanol/water)	
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	13.90 lb/gal
Flammability class	Combustible IIIA estimated
Percent volatile	27.5 %
pH in aqueous solution	3.6 1% dilution in water
Specific gravity	1.67 @ 25°C/4°C (77°F/39°F)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions. Unstable in the presence of iron. Corrosive to aluminum and magnesium
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Excessive heat.
Incompatible materials	Strong oxidizing agents. Strong acids. Strong bases. May be corrosive to metals.
Hazardous decomposition products	Heating product to decomposition will cause emission of acrid smoke and fumes of hydrogen chloride, hydrogen bromide, phosphorous oxides, and carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Harmful if inhaled.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Toxic if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

This is a cholinesterase inhibiting organophosphorous pesticide.

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, unconsciousness, convulsions, severe respiratory depression and death may occur. Product may cause slight but temporary irritation to the eyes and may cause irritation of the skin.

Repeated exposures to small doses of organophosphates may lower the cholinesterase to levels where the above symptoms of acute overexposure are observed. May cause an allergic skin reaction. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity Toxic if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage.

Product	Species	Test Results
TRUMPET® EC INSECTICIDE		
<u>Acute</u>		
Dermal		
<i>Liquid</i>		
LD50	Rabbit	5050 mg/kg (female)

Product	Species	Test Results
Oral <i>Liquid</i> LD50	Rat	235 mg/kg
Components	Species	Test Results
Aromatic solvent (CAS 64742-94-5)		
Acute		
Inhalation		
LC50	Rat	61 mg/l, 4 Hours
Naled (CAS 300-76-5)		
Acute		
Dermal		
LD50	Rabbit	4037 mg/kg Toxicity Category III; female/ male
Skin corrosion/irritation	Corrosive to skin and eyes.	
Irritation Corrosion - Skin		
TRUMPET® EC INSECTICIDE		, Corrosive
Serious eye damage/eye irritation	Causes serious eye damage.	
Eye		
TRUMPET® EC INSECTICIDE		, Extremely Irritating
Respiratory or skin sensitization		
Respiratory sensitization	Not available.	
Skin sensitization	Not a skin sensitizer.	
Skin sensitization		
TRUMPET® EC INSECTICIDE		, Not a sensitizer
Germ cell mutagenicity	No clear evidence of in vivo mutagenicity in mammalian assay.	
Carcinogenicity	No evidence of carcinogenicity in laboratory animals with Naled Technical. However, EPA under its 1999 proposed Guidelines for Carcinogen Risk Assessment has classified DDVP, an impurity in Naled, as having "suggestive evidence of carcinogenicity, but not sufficient to assess human carcinogenic potential." IARC listed DDVP (Dichlorvos) as being possibly carcinogenic to humans (Group 2B). Not classifiable as to carcinogenicity to humans.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Dichlorvos (DDVP) (CAS 62-73-7)		2B Possibly carcinogenic to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)		
Not regulated.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
	NALED TERATOGENICITY: Maternal toxicity in rats was observed at 40 mg/kg/day (body weight loss, tremors, painful or difficult breathing, and decreased activity) using Naled Technical (a.i.). No developmental effects were observed at this dose level. The maternal NOEL was 10 mg/kg/day. The developmental NOEL was 40 mg/kg/day.	
	In a two-generation rat reproduction study with Naled Technical (a.i.), a decrease in male body weight gain was observed at 18 mg/kg/day; however, no effects on reproduction were found in adult animals. Decreases in offspring survival, number of pups born and decreased pup weights were noted at 18 mg/kg/day. The NOEL for both adults and offspring was 6 mg/kg/day.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not available.	
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.	

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects. This product is toxic to fish, birds, and other wildlife. Keep out of any body of water. Do not contaminate water when disposing of equipment washwaters or wastes. Notify authorities if any exposure to the general public or environment occurs or is likely to occur.

Components	Species	Test Results	
Aromatic solvent (CAS 64742-94-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	2.7 - 5.1 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	8.8 mg/l, 96 hours
			8.8 mg/l, 96 hours
Naled (CAS 300-76-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	0.0002 - 0.0008 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.083 - 0.208 mg/l, 96 hours
Impurities	Species	Test Results	
Dichlorvos (DDVP) (CAS 62-73-7)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	0 - 0.0001 mg/l, 48 hours
Fish	LC50	Cutthroat trout (Oncorhynchus clarki)	0.141 - 0.321 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential Not available.

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with all applicable local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal methods/information).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal according to all applicable regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN2922
UN proper shipping name	Corrosive liquids, toxic, n.o.s. (Naled RQ = 10 lbs), MARINE POLLUTANT
Transport hazard class(es)	
Class	8
Subsidiary risk	6.1(PGIII)
Label(s)	8, 6.1
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, T7, TP1, TP28
Packaging exceptions	154

Packaging non bulk 203
Packaging bulk 241

IATA

UN number UN2922
UN proper shipping name Corrosive liquids, toxic, n.o.s. (Naled)
Transport hazard class(es)
Class 8
Subsidiary risk 6.1(PGIII)
Label(s) 8, 6.1
Packing group III
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN2922
UN proper shipping name Corrosive liquids, toxic, n.o.s. (Naled), MARINE POLLUTANT
Transport hazard class(es)
Class 8
Subsidiary risk 6.1(PGIII)
Label(s) 8, 6.1
Packing group III
Environmental hazards
Marine pollutant Yes
EmS Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

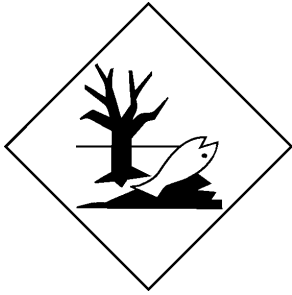
DOT



IATA; IMDG



Marine pollutant



General information

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This product is registered under EPA/FIFRA Regulations as a RESTRICTED USE PESTICIDE. It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA. This is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

HAZARD TO HUMANS AND DOMESTIC ANIMALS.

DANGER: CORROSIVE! Causes irreversible eye damage. Causes skin burns. May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Do not get in eyes, on skin, or on clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds, and other wildlife. Keep out of any body of water. Do not contaminate water when disposing of equipment washwaters or wastes. Before making the first application in a season, consult with the primary State agency responsible for regulating the pesticide to determine if permits are required or regulatory mandates exist. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (e.g., lakes, swamps, rivers, permanent streams, natural ponds, commercial fish ponds, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. See the label for more complete information.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Dichlorvos (DDVP) (CAS 62-73-7) Listed.

Naled (CAS 300-76-5) Listed.

SARA 304 Emergency release notification

Dichlorvos (DDVP) (CAS 62-73-7) 10 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Dichlorvos (DDVP)	62-73-7	10	1000		

SARA 311/312 Hazardous chemical Yes

Classified hazard categories Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Aspiration hazard

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Naled	300-76-5	78
Dichlorvos (DDVP)	62-73-7	≤ 0.4

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Dichlorvos (DDVP) (CAS 62-73-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65



WARNING: This product can expose you to Dichlorvos (DDVP), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Dichlorvos (DDVP) (CAS 62-73-7) Listed: January 1, 1989

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date Aug-14-2015

Revision date Jul-16-2021

References ACGIH®: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
EPA: Environmental Protection Agency
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Agency
SARA: Superfund Amendments and Reauthorization Act
TSCA: Toxic Substances Control Act
DOT: Department of Transportation
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association

Version # 3.1

HMIS® ratings Health: 3
Flammability: 2
Physical hazard: 0

NFPA ratings Health: 3
Flammability: 2
Instability: 0

Disclaimer

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HMIS is a trademark of the American Coatings Association.

NFPA is a trademark of the National Fire Protection Association, Inc.

Revision information

Handling and storage: Conditions for safe storage, including any incompatibilities

Regulatory information: California Proposition 65