

# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>Colorado Pesticide Standards Mixture 4</b>	
<b>Other means of identification</b>		
<b>Item</b>	M-COLCAN4A1	
<b>Recommended use</b>	For Laboratory Use Only	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Manufacturer</b>		
<b>Company name</b>	Chem Service, Inc.	
<b>Address</b>	660 Tower Lane West Chester, PA 19380 United States	
<b>Telephone</b>	Toll Free	800-452-9994
	Direct	610-692-3026
<b>Website</b>	www.chemservice.com	
<b>E-mail</b>	info@chemservice.com	
<b>Emergency phone number</b>	Chemtrec US	800-424-9300
	Chemtrec outside US	+1 703-527-3887

## 2. Hazard(s) identification

<b>Physical hazards</b>	Flammable liquids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 3
	Serious eye damage/eye irritation	Category 2A
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
<b>OSHA defined hazards</b>	Not classified.	
<b>Label elements</b>		



<b>Signal word</b>	Danger
<b>Hazard statement</b>	Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Causes serious eye irritation. Toxic if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing. Wear protective gloves/eye protection/face protection.

<b>Response</b>	If swallowed: Immediately call a poison center/doctor. Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor. If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
<b>Storage</b>	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in refrigerator (0 - 5 °C).
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
<b>Supplemental information</b>	99.8% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 99.8% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetonitrile		75-05-8	99.8
Acephate		30560-19-1	0.01
Chlorpyrifos		2921-88-2	0.01
Coumaphos		56-72-4	0.01
Diazinon		333-41-5	0.01
Dichlorvos		62-73-7	0.01
Dimethoate		60-51-5	0.01
Etofenprox		80844-07-1	0.01
Etoxazole		153233-91-1	0.01
Etridiazole		2593-15-9	0.01
Fensulfothion		115-90-2	0.01
Fenthion		55-38-9	0.01
Malathion		121-75-5	0.01
Methyl parathion		298-00-0	0.01
Mevinphos		7786-34-7	0.01
Naled		300-76-5	0.01
Phosmet		732-11-6	0.01
Prophos		13194-48-4	0.01
Spiroxamine		118134-30-8	0.01
Tetrachlorvinphos		22248-79-9	0.01
Thiophanate-methyl		23564-05-8	0.01

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

<b>Most important symptoms/effects, acute and delayed</b>	Convulsions. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off immediately all contaminated clothing. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.
<b>5. Fire-fighting measures</b>	
<b>Suitable extinguishing media</b>	Water fog. Alcohol resistant foam. Carbon dioxide (CO <sub>2</sub> ). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Highly flammable liquid and vapor.
<b>6. Accidental release measures</b>	
<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors and spray mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.  Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use.
<b>Environmental precautions</b>	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

### Precautions for safe handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not taste or swallow. Avoid inhalation of vapors and spray mists. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

### Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store in freezer (<0 °C).

## 8. Exposure controls/personal protection

### Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Acetonitrile (CAS 75-05-8)	PEL	70 mg/m3 40 ppm	
Dichlorvos (CAS 62-73-7)	PEL	1 mg/m3	
Malathion (CAS 121-75-5)	PEL	15 mg/m3	Total dust.
Mevinphos (CAS 7786-34-7)	PEL	0.1 mg/m3	
Naled (CAS 300-76-5)	PEL	3 mg/m3	

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetonitrile (CAS 75-05-8)	TWA	20 ppm	
Chlorpyrifos (CAS 2921-88-2)	TWA	0.1 mg/m3	Inhalable fraction and vapor.
Coumaphos (CAS 56-72-4)	TWA	0.05 mg/m3	Inhalable fraction and vapor.
Diazinon (CAS 333-41-5)	TWA	0.01 mg/m3	Inhalable fraction and vapor.
Dichlorvos (CAS 62-73-7)	TWA	0.1 mg/m3	Inhalable fraction and vapor.
Fensulfothion (CAS 115-90-2)	TWA	0.01 mg/m3	Inhalable fraction and vapor.
Fenthion (CAS 55-38-9)	TWA	0.05 mg/m3	Inhalable fraction and vapor.
Malathion (CAS 121-75-5)	TWA	1 mg/m3	Inhalable fraction and vapor.

**US. ACGIH Threshold Limit Values**

Components	Type	Value	Form
Methyl parathion (CAS 298-00-0)	TWA	0.02 mg/m3	Inhalable fraction and vapor.
Mevinphos (CAS 7786-34-7)	TWA	0.01 mg/m3	Inhalable fraction and vapor.
Naled (CAS 300-76-5)	TWA	0.1 mg/m3	Inhalable fraction and vapor.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Components	Type	Value
Acetonitrile (CAS 75-05-8)	TWA	34 mg/m3
		20 ppm
Chlorpyrifos (CAS 2921-88-2)	STEL	0.6 mg/m3
	TWA	0.2 mg/m3
Diazinon (CAS 333-41-5)	TWA	0.1 mg/m3
Dichlorvos (CAS 62-73-7)	TWA	1 mg/m3
Fensulfothion (CAS 115-90-2)	TWA	0.1 mg/m3
Malathion (CAS 121-75-5)	TWA	10 mg/m3
Methyl parathion (CAS 298-00-0)	TWA	0.2 mg/m3
Mevinphos (CAS 7786-34-7)	STEL	0.3 mg/m3
		0.03 ppm
	TWA	0.1 mg/m3
Naled (CAS 300-76-5)	TWA	0.01 ppm
		3 mg/m3

**Biological limit values**
**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Chlorpyrifos (CAS 2921-88-2)	70 %	Acetylcholinest erase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Coumaphos (CAS 56-72-4)	70 %	Acetylcholinest erase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Diazinon (CAS 333-41-5)	70 %	Acetylcholinest erase activity	Reduction from individual baseline activity in red blood cells	*

**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Dichlorvos (CAS 62-73-7)	70 %	Acetylcholines terase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Fensulfothion (CAS 115-90-2)	70 %	Acetylcholines terase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Fenthion (CAS 55-38-9)	70 %	Acetylcholines terase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Malathion (CAS 121-75-5)	70 %	Acetylcholines terase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*
Mevinphos (CAS 7786-34-7)	70 %	Acetylcholines terase activity	Reduction from individual baseline activity in red blood cells	*
	60 %	Butyrylcholines terase activity	Serum or Plasma	*

\* - For sampling details, please see the source document.

**Exposure guidelines**

**US - California OELs: Skin designation**

Acetonitrile (CAS 75-05-8)	Can be absorbed through the skin.
Chlorpyrifos (CAS 2921-88-2)	Can be absorbed through the skin.
Diazinon (CAS 333-41-5)	Can be absorbed through the skin.
Dichlorvos (CAS 62-73-7)	Can be absorbed through the skin.
Fenthion (CAS 55-38-9)	Can be absorbed through the skin.
Malathion (CAS 121-75-5)	Can be absorbed through the skin.
Methyl parathion (CAS 298-00-0)	Can be absorbed through the skin.
Mevinphos (CAS 7786-34-7)	Can be absorbed through the skin.
Naled (CAS 300-76-5)	Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

Acetonitrile (CAS 75-05-8)	Skin designation applies.
Chlorpyrifos (CAS 2921-88-2)	Skin designation applies.
Diazinon (CAS 333-41-5)	Skin designation applies.
Dichlorvos (CAS 62-73-7)	Skin designation applies.
Malathion (CAS 121-75-5)	Skin designation applies.
Methyl parathion (CAS 298-00-0)	Skin designation applies.
Mevinphos (CAS 7786-34-7)	Skin designation applies.

**US - Tennessee OELs: Skin designation**

Chlorpyrifos (CAS 2921-88-2)	Can be absorbed through the skin.
Diazinon (CAS 333-41-5)	Can be absorbed through the skin.
Dichlorvos (CAS 62-73-7)	Can be absorbed through the skin.
Fenthion (CAS 55-38-9)	Can be absorbed through the skin.
Malathion (CAS 121-75-5)	Can be absorbed through the skin.
Methyl parathion (CAS 298-00-0)	Can be absorbed through the skin.
Mevinphos (CAS 7786-34-7)	Can be absorbed through the skin.
Naled (CAS 300-76-5)	Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Acetonitrile (CAS 75-05-8)	Danger of cutaneous absorption
Chlorpyrifos (CAS 2921-88-2)	Danger of cutaneous absorption
Coumaphos (CAS 56-72-4)	Danger of cutaneous absorption
Diazinon (CAS 333-41-5)	Danger of cutaneous absorption
Dichlorvos (CAS 62-73-7)	Danger of cutaneous absorption
Fensulfothion (CAS 115-90-2)	Danger of cutaneous absorption
Fenthion (CAS 55-38-9)	Danger of cutaneous absorption
Malathion (CAS 121-75-5)	Danger of cutaneous absorption
Methyl parathion (CAS 298-00-0)	Danger of cutaneous absorption
Mevinphos (CAS 7786-34-7)	Danger of cutaneous absorption
Naled (CAS 300-76-5)	Danger of cutaneous absorption

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

Chlorpyrifos (CAS 2921-88-2)	Can be absorbed through the skin.
Diazinon (CAS 333-41-5)	Can be absorbed through the skin.
Dichlorvos (CAS 62-73-7)	Can be absorbed through the skin.
Malathion (CAS 121-75-5)	Can be absorbed through the skin.
Methyl parathion (CAS 298-00-0)	Can be absorbed through the skin.
Mevinphos (CAS 7786-34-7)	Can be absorbed through the skin.
Naled (CAS 300-76-5)	Can be absorbed through the skin.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Dichlorvos (CAS 62-73-7)	Can be absorbed through the skin.
Malathion (CAS 121-75-5)	Can be absorbed through the skin.
Mevinphos (CAS 7786-34-7)	Can be absorbed through the skin.

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Wear appropriate chemical resistant gloves.

**Other**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Dust & vapor respirator.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

When using do not smoke. Keep away from food and drink. 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** Not available.

**Odor** Not available.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** -49 °F (-45 °C) estimated

**Initial boiling point and boiling range** 178.88 °F (81.6 °C) estimated

**Flash point** 42.0 °F (5.6 °C) estimated

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

### Upper/lower flammability or explosive limits

**Explosive limit - lower (%)** 3 % estimated

**Explosive limit - upper (%)** 16 % estimated

**Vapor pressure** 118.4 hPa estimated

**Vapor density** Not available.

**Relative density** Not available.

### Solubility(ies)

**Solubility (water)** Not available.

**Partition coefficient (n-octanol/water)** Not available.

**Auto-ignition temperature** 975.2 °F (524 °C) estimated

**Decomposition temperature** Not available.

**Viscosity** Not available.

### Other information

**Density** 0.78805 g/cm<sup>3</sup> estimated

**Explosive properties** Not explosive.

**Flammability class** Flammable IB estimated

**Oxidizing properties** Not oxidizing.

**Percent volatile** 99.8 % estimated

**Specific gravity** 0.79 estimated

**VOC** 99.8 % estimated

## 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.

**Possibility of hazardous reactions** Hazardous polymerization does not occur.

**Conditions to avoid** Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

**Incompatible materials** Strong oxidizing agents.

**Hazardous decomposition products** No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** Toxic if inhaled.

**Skin contact** Toxic in contact with skin.

**Eye contact** Causes serious eye irritation.



**Ingestion**

Toxic if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

Convulsions. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Information on toxicological effects****Acute toxicity**

Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Acephate (CAS 30560-19-1)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Oral</b>		
LD50	Rat	866 mg/kg
Chlorpyrifos (CAS 2921-88-2)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	202 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 36 mg/m <sup>3</sup> , 4 Hours
<b>Oral</b>		
LD50	Rat	82 mg/kg
Coumaphos (CAS 56-72-4)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	500 mg/kg
<b>Oral</b>		
LD50	Rat	13 mg/kg
Diazinon (CAS 333-41-5)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	180 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 2330 mg/m <sup>3</sup> , 4 Hours
<b>Oral</b>		
LD50	Rat	76 mg/kg
Dichlorvos (CAS 62-73-7)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	75 mg/kg
<b>Inhalation</b>		
LC50	Rat	15 mg/m <sup>3</sup> , 4 Hours
<b>Oral</b>		
LD50	Rat	17 mg/kg
Dimethoate (CAS 60-51-5)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 800 mg/kg
<b>Inhalation</b>		
LC50	Rat	> 1.553 mg/l, 4 Hours

Components	Species	Test Results
Etofenprox (CAS 80844-07-1)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	-	5.9 mg/l, 4 Hours
<b>Oral</b>		
LD50	-	42880 mg/kg
Etoxazole (CAS 153233-91-1)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg
<b>Oral</b>		
LD50	Rat	4274 mg/kg
Etridiazole (CAS 2593-15-9)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	1700 mg/kg
<b>Inhalation</b>		
LC50	-	5.7 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	1028 mg/kg
Fensulfothion (CAS 115-90-2)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	Rat	29.5 mg/m3, 4 Hours
<b>Oral</b>		
LD50	Rat	1.8 mg/kg
Fenthion (CAS 55-38-9)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	330 - 500 mg/kg
<b>Oral</b>		
LD50	Rat	190 - 315 mg/kg
Malathion (CAS 121-75-5)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	2460 - 6150 mg/kg
<b>Oral</b>		
LD50	Rat	290 mg/kg
Methyl parathion (CAS 298-00-0)		
<b><u>Acute</u></b>		
<b>Inhalation</b>		
LC50	-	34 mg/m3, 4 Hours
<b>Oral</b>		
LD50	Rat	14 mg/kg
Mevinphos (CAS 7786-34-7)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	4.7 mg/kg
<b>Oral</b>		
LD50	Mouse	4.3 - 6.8 mg/kg

Components	Species	Test Results
Naled (CAS 300-76-5)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rat	800 mg/kg
<b>Oral</b>		
LD50	Rat	250 mg/kg
Phosmet (CAS 732-11-6)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 5000 mg/kg
<b>Inhalation</b>		
LC50	Rat	2.76 mg/l, 1 Hours
<b>Oral</b>		
LD50	Rat	26 mg/kg
Prophos (CAS 13194-48-4)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	8.5 mg/kg
<b>Oral</b>		
LD50	Rat	33 mg/kg
Thiophanate-methyl (CAS 23564-05-8)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
<b>Inhalation</b>		
LC50	Rat	1.7 mg/l, 4 Hours
<b>Oral</b>		
LD50	Rat	6640 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Causes serious eye irritation.

**Respiratory or skin sensitization**

**ACGIH sensitization**

Dichlorvos (DDVP), inhalable fraction and vapor (CAS 62-73-7) Dermal sensitization

Naled, inhalable fraction and vapor (CAS 300-76-5) Dermal sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** Not classifiable as to carcinogenicity to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Diazinon (CAS 333-41-5) 2A Probably carcinogenic to humans.

Dichlorvos (CAS 62-73-7) 2B Possibly carcinogenic to humans.

Malathion (CAS 121-75-5) 2A Probably carcinogenic to humans.

Methyl parathion (CAS 298-00-0) 3 Not classifiable as to carcinogenicity to humans.

Tetrachlorvinphos (CAS 22248-79-9) 2B Possibly carcinogenic to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Acephate (CAS 30560-19-1)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	> 50 mg/l, 48 hours
Fish	LC50	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	>= 1.09 - <= 1.77 mg/l, 96 hours
Acetonitrile (CAS 75-05-8)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Fathead minnow ( <i>Pimephales promelas</i> )	> 100 mg/l, 96 hours
Chlorpyrifos (CAS 2921-88-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Scud ( <i>Gammarus pulex</i> )	>= 0.0002 - <= 0.0005 mg/l, 48 hours
Fish	LC50	Atlantic silverside ( <i>Menidia menidia</i> )	>= 0.0004 - <= 0.0006 mg/l, 96 hours
Coumaphos (CAS 56-72-4)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Simocephalus serrulatus</i> )	0.0001 mg/l, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	0.18 mg/l, 96 hours
Diazinon (CAS 333-41-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )	>= 0.0006 - <= 0.0011 mg/l, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	0.022 mg/l, 96 hours 0.022 mg/l, 96 hours
Dichlorvos (CAS 62-73-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )	>= 0 - <= 0.0001 mg/l, 48 hours
Fish	LC50	Carp ( <i>Cyprinus carpio</i> )	0.0015 mg/l
Dimethoate (CAS 60-51-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	>= 0.48 - <= 0.66 mg/l, 48 hours
Fish	LC50	Walking catfish ( <i>Clarias batrachus</i> )	0.065 mg/l, 96 hours
Etofenprox (CAS 80844-07-1)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Mozambique tilapia ( <i>Tilapia mossambica</i> )	>= 1.49 - <= 2.02 mg/l, 96 hours

Components	Species	Test Results	
Fensulfothion (CAS 115-90-2)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	>= 0.009 - <= 0.1 mg/l, 96 hours
Fenthion (CAS 55-38-9)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Simocephalus serrulatus</i> )	>= 0.0004 - <= 0.0009 mg/l, 48 hours
Fish	LC50	Carp ( <i>Cyprinus carpio</i> )	>= 0.532 - <= 2.55 mg/l, 96 hours
Malathion (CAS 121-75-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Simocephalus serrulatus</i> )	>= 0.0004 - <= 0.0008 mg/l, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	>= 0.016 - <= 0.025 mg/l, 96 hours
Methyl parathion (CAS 298-00-0)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	>= 0.0001 - <= 0.0002 mg/l, 48 hours
Fish	LC50	Cutthroat trout ( <i>Oncorhynchus clarki</i> )	>= 1.39 - <= 2.47 mg/l, 96 hours
Mevinphos (CAS 7786-34-7)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )	>= 0.0001 - <= 0.0002 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	0.012 mg/l, 96 hours
Naled (CAS 300-76-5)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia pulex</i> )	>= 0.0002 - <= 0.0008 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	>= 0.083 - <= 0.208 mg/l, 96 hours
Phosmet (CAS 732-11-6)			
<b>Aquatic</b>			
<i>Acute</i>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	>= 0.0042 - <= 0.0084 mg/l, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	>= 0.05 - <= 0.1 mg/l, 96 hours
Propfos (CAS 13194-48-4)			
<b>Aquatic</b>			
<i>Acute</i>			
Fish	LC50	Carp ( <i>Cyprinus carpio</i> )	>= 0.47 - <= 0.88 mg/l, 96 hours
Tetrachlorvinphos (CAS 22248-79-9)			
<b>Aquatic</b>			
Crustacea	EC50	Northern pink shrimp ( <i>Penaeus duorarum</i> )	0.28 mg/l, 48 hours
<i>Acute</i>			
Fish	LC50	Rainbow trout,donaldson trout ( <i>Oncorhynchus mykiss</i> )	>= 0.332 - <= 0.557 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

#### Persistence and degradability

#### Bioaccumulative potential

**Partition coefficient n-octanol / water (log Kow)**

Acephate	-0.85
Acetonitrile	-0.34
Chlorpyrifos	4.96
Coumaphos	4.13
Diazinon	3.81
Dichlorvos	1.43
Dimethoate	0.78
Etridiazole	3.37
Fensulfothion	2.23
Fenthion	4.091
Malathion	2.36
Methyl parathion	2.86
Mevinphos	0.13
Naled	1.38
Phosmet	2.95
Prophos	3.59
Tetrachlorvinphos	3.53

**Mobility in soil** No data available.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

**13. Disposal considerations**

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. 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 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.

**US RCRA Hazardous Waste P List: Reference**

Dimethoate (CAS 60-51-5)	P044
Methyl parathion (CAS 298-00-0)	P071

**Waste from residues / unused products** Dispose of in accordance with local 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 instructions).

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

**14. Transport information****DOT**

<b>UN number</b>	UN1648
<b>UN proper shipping name</b>	Acetonitrile, solution (Acetonitrile RQ = 5010 LBS) (Fensulfothion, Phosmet)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	3
<b>Packing group</b>	II
<b>Special precautions for user</b>	Not available.
<b>Special provisions</b>	IB2, T7, TP2
<b>Packaging exceptions</b>	150
<b>Packaging non bulk</b>	202
<b>Packaging bulk</b>	242

**IATA**

<b>UN number</b>	UN1648
<b>UN proper shipping name</b>	Acetonitrile solution (Acetonitrile)
<b>Transport hazard class(es)</b>	
<b>Class</b>	3
<b>Subsidiary risk</b>	-
<b>Packing group</b>	II
<b>Environmental hazards</b>	No.

ERG Code 3L  
Special precautions for user Not available.  
Other information  
Passenger and cargo aircraft Allowed with restrictions.  
Cargo aircraft only Allowed with restrictions.

#### IMDG

UN number UN1648  
UN proper shipping name ACETONITRILE SOLUTION (Acetonitrile)  
Transport hazard class(es)  
Class 3  
Subsidiary risk -  
Packing group II  
Environmental hazards  
Marine pollutant No.  
EmS F-E, S-D  
Special precautions for user Not available.

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

#### DOT



#### IATA; IMDG



General information IMDG Regulated Marine Pollutant. DOT 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.

#### Toxic Substances Control Act (TSCA)

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

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Acetonitrile (CAS 75-05-8)	Listed.
Chlorpyrifos (CAS 2921-88-2)	Listed.
Coumaphos (CAS 56-72-4)	Listed.
Diazinon (CAS 333-41-5)	Listed.
Dichlorvos (CAS 62-73-7)	Listed.
Dimethoate (CAS 60-51-5)	Listed.
Malathion (CAS 121-75-5)	Listed.
Methyl parathion (CAS 298-00-0)	Listed.
Mevinphos (CAS 7786-34-7)	Listed.

Naled (CAS 300-76-5) Listed.  
Thiophanate-methyl (CAS 23564-05-8) Listed.

**SARA 304 Emergency release notification**

Coumaphos (CAS 56-72-4) 10 LBS  
Dimethoate (CAS 60-51-5) 10 LBS  
Fensulfothion (CAS 115-90-2) 500 LBS  
Methyl parathion; Parathion-methyl (CAS 298-00-0) 100 LBS  
Mevinphos (CAS 7786-34-7) 10 LBS  
Phosphoric acid, 2-dichloroethenyl dimethyl ester;  
Dichlorvos (CAS 62-73-7) 10 LBS  
Phosphorodithioic acid O-ethyl S,S- dipropyl ester;  
Ethoprop; Ethoprophos (CAS 13194-48-4) 1000 LBS

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

Not listed.

**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)
Coumaphos	56-72-4	10		100	10000
Dichlorvos	62-73-7	10	1000		
Dimethoate	60-51-5	10		500	10000
Fensulfothion	115-90-2	500	500		
Methyl parathion	298-00-0	100		100	10000
Mevinphos	7786-34-7	10	500		
Prophos	13194-48-4	1000	1000		

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Acetonitrile	75-05-8	99.8

**Other federal regulations**

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

Acetonitrile (CAS 75-05-8)  
Dichlorvos (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**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Acetonitrile (CAS 75-05-8)

**California Proposition 65**

**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Dichlorvos (CAS 62-73-7) Listed: January 1, 1989  
Etridiazole (CAS 2593-15-9) Listed: October 1, 1994  
Malathion (CAS 121-75-5) Listed: May 20, 2016  
Prophos (CAS 13194-48-4) Listed: February 27, 2001  
Tetrachlorvinphos (CAS 22248-79-9) Listed: May 20, 2016

**California Proposition 65 - CRT: Listed date/Developmental toxin**

Chlorpyrifos (CAS 2921-88-2) Listed: December 15, 2017

**California Proposition 65 - CRT: Listed date/Female reproductive toxin**

Thiophanate-methyl (CAS 23564-05-8) Listed: May 18, 1999

**California Proposition 65 - CRT: Listed date/Male reproductive toxin**

Thiophanate-methyl (CAS 23564-05-8) Listed: May 18, 1999



## International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
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** 04-04-2023

**Version #** 01

**NFPA ratings**  
Health: 3  
Flammability: 3  
Instability: 0

### Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

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