SAFETY DATA SHEET



1. Identification

Product identifier USP Method 561 Phosphorus Pesticides Mixture

Other means of identification

Item M-USP561PU1

Recommended use For Laboratory Use Only

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc.
Address 660 Tower Lane

West Chester, PA 19380

United States

Telephone Toll Free 800-452-9994

Direct 610-692-3026

Website www.chemservice.com
E-mail info@chemservice.com

Emergency phone number Chemtrec US 800-424-9300

Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 2Health hazardsAcute toxicity, oralCategory 4Acute toxicity, inhalationCategory 4Skin corrosion/irritationCategory 2Serious eye damage/eye irritationCategory 2A

Reproductive toxicity (the unborn child) Category 2

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated

exposure

Category 2

Category 1

Environmental hazards Hazardous to the aquatic environment, acute

hazard

Hazardous to the aquatic environment,

Category 1

long-term hazard

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Highly flammable liquid and vapor. Harmful if swallowed. Causes skin irritation. Causes serious

eye irritation. Harmful if inhaled. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. Very toxic to

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

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not breathe mist or vapor. 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 eye protection/face protection. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Call a poison center/doctor if you feel unwell. 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. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Rinse mouth. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Disposal

 $\label{thm:local-regional-national-international regulations.} Dispose of contents/container in accordance with local/regional/national/international regulations.$

Hazard(s) not otherwise classified (HNOC)

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.

Supplemental information

0.09% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Toluene		108-88-3	99 - 100
Acephate		30560-19-1	0.01
Azinphos-ethyl		2642-71-9	0.01
Azinphos-methyl		86-50-0	0.01
Bromophos ethyl		4824-78-6	0.01
Bromophos methyl		2104-96-3	0.01
Diazinon		333-41-5	0.01
Dichlorvos		62-73-7	0.01
Dimethoate		60-51-5	0.01
Ethion		563-12-2	0.01
Etrimfos		38260-54-7	0.01
Fenchlorphos		299-84-3	0.01
Fenitrothion		122-14-5	0.01
Fensulfothion		115-90-2	0.01
Fenthion		55-38-9	0.01
Fonofos		944-22-9	0.01
Malathion		121-75-5	0.01
Mecarbam		2595-54-2	0.01
Methacrifos		30864-28-9	0.01
Methamidophos		10265-92-6	0.01
Methidathion		950-37-8	0.01
Methyl parathion		298-00-0	0.01
Monocrotophos		6923-22-4	0.01
Omethoate		1113-02-6	0.01
Parathion		56-38-2	0.01

Chemical name	Common name and synonyms	CAS number	%
Phosalone		2310-17-0	0.01
Phosmet		732-11-6	0.01
Pirimiphos-ethyl		23505-41-1	0.01
Pirimiphos-methyl		29232-93-7	0.01
Profenofos		41198-08-7	0.01
Quinalphos		13593-03-8	0.01

4. First-aid measures

Skin contact

Ingestion

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation.

occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Do not use water jet as an extinguisher, as this will spread the fire.

Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed

Indication of immediate medical attention and special treatment needed

General information

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects. 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.

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). 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.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media

Specific hazards arising from

the chemical

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.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Specific methods

General fire hazards

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials.

Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions. protective equipment and emergency procedures

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. Do not breathe mist or vapor. 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. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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. Cover with plastic sheet to prevent spreading. 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. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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 breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. 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 away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910,1000)

Components	Type	Value	Form
Azinphos-methyl (CAS 86-50-0)	PEL	0.2 mg/m3	
Dichlorvos (CAS 62-73-7)	PEL	1 mg/m3	
Fenchlorphos (CAS 299-84-3)	PEL	15 mg/m3	
Malathion (CAS 121-75-5)	PEL	15 mg/m3	Total dust.
Parathion (CAS 56-38-2)	PEL	0.1 mg/m3	
US. OSHA Table Z-2 (29 CFR 1910	0.1000)		
Components	Туре	Value	
Toluene (CAS 108-88-3)	Ceiling	300 ppm	
	TWA	200 ppm	

Components	Тур	e	Val	lue	Form
Azinphos-methyl (CAS 86-50-0)	TW	A	0.2	mg/m3	Inhalable fraction and vapor.
Diazinon (CAS 333-41-5)	TW	A	0.0	1 mg/m3	Inhalable fraction and vapor.
Dichlorvos (CAS 62-73-7)	TW	A	0.1	mg/m3	Inhalable fraction and vapor.
Ethion (CAS 563-12-2)	TW	A	0.0	5 mg/m3	Inhalable fraction and vapor.
Fenchlorphos (CAS 299-84-3)	TW	A	5 n	ng/m3	Inhalable fraction and vapor.
Fensulfothion (CAS 115-90-2)	TW	A	0.0	1 mg/m3	Inhalable fraction and vapor.
Fenthion (CAS 55-38-9)	TW	A	0.0	5 mg/m3	Inhalable fraction and vapor.
Fonofos (CAS 944-22-9)	TW	A	0.1	mg/m3	Inhalable fraction and vapor.
Malathion (CAS 121-75-5)	TW	A	1 m	ng/m3	Inhalable fraction and vapor.
Methyl parathion (CAS 298-00-0)	TW	A	0.0	2 mg/m3	Inhalable fraction and vapor.
Monocrotophos (CAS 6923-22-4)	TW	A	0.0	5 mg/m3	Inhalable fraction and vapor.
Parathion (CAS 56-38-2)	TW	A	0.0	5 mg/m3	Inhalable fraction and vapor.
Toluene (CAS 108-88-3)	TW	A	20	ppm	•
US. NIOSH: Pocket Guide Components	to Chemical Hazards Typ		Val	lue	
Azinphos-methyl (CAS	TW	A	0.2	mg/m3	
86-50-0)					
Diazinon (CAS 333-41-5)	TW			mg/m3	
Dichlorvos (CAS 62-73-7)	TW			ng/m3	
Ethion (CAS 563-12-2)	TW			mg/m3	
Fenchlorphos (CAS 299-84-3)	TW			mg/m3	
Fensulfothion (CAS 115-90-2)	TW			ppm	
Fonofos (CAS 944-22-9)	TW	A		mg/m3	
Malathion (CAS 121-75-5)	TW			mg/m3	
Methyl parathion (CAS 298-00-0)	TW			mg/m3	
Monocrotophos (CAS 6923-22-4)	TW			5 mg/m3	
Parathion (CAS 56-38-2)	TW			5 mg/m3	
Toluene (CAS 108-88-3)	STE	EL) mg/m3	
) ppm	
	TW	A		5 mg/m3	
			100) ppm	
ogical limit values					
ACGIH Biological Exposui Components	re Indices Value	Determinant	Specimen	Sampling	Time
Parathion (CAS 56-38-2)	70 %	Cholinesterase activity	Reduction from individual baseline activity in red blood	*	
	0.5 mg/g	Total p-nitrophenol	cells Creatinine in urine	*	

p-nitrophenol

o-Cresol, with

hydrolysis

urine

urine

Creatinine in

0.3 mg/g

Toluene (CAS 108-88-3)

Components	Value	Determinant	Specimen	Sampling Time
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

^{* -} For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

Azinphos-methyl (CAS 86-50-0) 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. Ethion (CAS 563-12-2) Can be absorbed through the skin. Fenthion (CAS 55-38-9) Can be absorbed through the skin. Fonofos (CAS 944-22-9) 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. Parathion (CAS 56-38-2) Can be absorbed through the skin. Toluene (CAS 108-88-3) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Azinphos-methyl (CAS 86-50-0) Skin designation applies. Skin designation applies. Diazinon (CAS 333-41-5) Dichlorvos (CAS 62-73-7) Skin designation applies. Ethion (CAS 563-12-2) Skin designation applies. Fonofos (CAS 944-22-9) Skin designation applies. Malathion (CAS 121-75-5) Skin designation applies. Methyl parathion (CAS 298-00-0) Skin designation applies. Parathion (CAS 56-38-2) Skin designation applies. Skin designation applies. Toluene (CAS 108-88-3)

US - Tennessee OELs: Skin designation

Azinphos-methyl (CAS 86-50-0) Can be absorbed through the skin. Diazinon (CAS 333-41-5) Can be absorbed through the skin. Can be absorbed through the skin. Dichlorvos (CAS 62-73-7) Ethion (CAS 563-12-2) Can be absorbed through the skin. Fenthion (CAS 55-38-9) Can be absorbed through the skin. Fonofos (CAS 944-22-9) 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. Parathion (CAS 56-38-2) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Azinphos-methyl (CAS 86-50-0) 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. Ethion (CAS 563-12-2) Can be absorbed through the skin. Fensulfothion (CAS 115-90-2) Can be absorbed through the skin. Fenthion (CAS 55-38-9) Can be absorbed through the skin. Can be absorbed through the skin. Fonofos (CAS 944-22-9) Malathion (CAS 121-75-5) Can be absorbed through the skin. Can be absorbed through the skin. Methyl parathion (CAS 298-00-0) Can be absorbed through the skin. Monocrotophos (CAS 6923-22-4) Can be absorbed through the skin. Parathion (CAS 56-38-2)

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Azinphos-methyl (CAS 86-50-0) 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. Ethion (CAS 563-12-2) Can be absorbed through the skin. Fonofos (CAS 944-22-9) Can be absorbed through the skin. Can be absorbed through the skin. Malathion (CAS 121-75-5) Methyl parathion (CAS 298-00-0) Can be absorbed through the skin. Parathion (CAS 56-38-2) Can be absorbed through the skin.

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

Azinphos-methyl (CAS 86-50-0)

Can be absorbed through the skin.

Dichlorvos (CAS 62-73-7)

Can be absorbed through the skin.

Malathion (CAS 121-75-5) Parathion (CAS 56-38-2) Can be absorbed through the skin. 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. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

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

Respiratory protection Chemical respirator with organic vapor cartridge and full facepiece.

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 -138.82 °F (-94.9 °C) estimated Initial boiling point and boiling 231.08 °F (110.6 °C) estimated

range

Flash point 40.0 °F (4.4 °C) estimated

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

(0/)

Not available.

(%)

Flammability limit - upper

Not available.

(%)

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 37.86 hPa estimated

Vapor densityNot available.Relative densityNot available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 896 °F (480 °C) estimated

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Density 0.86455 g/cm3 estimated

Explosive properties Not explosive.

Flammability class Flammable IB estimated

Oxidizing properties

Percent volatile

Specific gravity

VOC (Weight %)

Not oxidizing.

99.7 % estimated

0.86 estimated

99.7 % estimated

10. Stability and reactivity

ReactivityThe 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 Hazardous polymerization does not occur.

reactions

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 No hazardous decomposition products are known.

products

11. Toxicological information

Information on likely routes of exposure

Inhalation Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by

inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Headache. May cause drowsiness and dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May

cause redness and pain.

Information on toxicological effects

Acute toxicity Harmful if inhaled. Harmful if swallowed. Narcotic effects.

Components Species Test Results

Acephate (CAS 30560-19-1)

Acute

Dermal

LD50 Rabbit 2000 mg/kg

Oral

LD50 Mouse 361 mg/kg

Rat 866 mg/kg

Azinphos-ethyl (CAS 2642-71-9)

Acute

Inhalation

LD50 Rat 0.15 mg/l, 4 Hours

Oral

 LD50
 Chicken
 34 mg/kg

 Guinea pig
 17 mg/kg

Rat 7 mg/kg

Azinphos-methyl (CAS 86-50-0)

Acute Dermal

LD50 Mouse 65 mg/kg

 Rabbit
 > 2000 mg/kg

 Rat
 220 mg/kg

Material name: USP Method 561 Phosphorus Pesticides Mixture M-USP561PU1 Version #: 01 Issue date: 05-12-2016

Components	Species	Test Results
Inhalation		
LC50	Rat	0.31 mg/l, 1 Hours
		0.15 mg/l, 4 Hours
Oral	_	
LD50	Dog	> 10 mg/kg
	Guinea pig	80 mg/kg
	Mouse	15 mg/kg
	Rat	4.4 mg/kg
Bromophos ethyl (CAS 4824	-78-6)	
<u>Acute</u> Oral		
LD50	Mouse	210 mg/kg
2500	Rat	52 mg/kg
Bromophos methyl (CAS 210		32 mg/kg
Acute	7- 30 0)	
Dermal Dermal		
LD50	Rat	> 5000 mg/kg
Oral		
LD50	Guinea pig	1500 mg/kg
	Mouse	2829 mg/kg
	Rabbit	720 mg/kg
	Rat	1600 mg/kg
Diazinon (CAS 333-41-5)		
<u>Acute</u>		
Dermal		0770 #
LD50	Mouse	2750 mg/kg
	Rabbit	180 mg/kg
	Rat	180 mg/kg
Inhalation	Dot	> 2300 mg/kg
LC50	Rat	> 2500 Hig/kg
Oral LD50	Chicken	40.8 mg/kg
2000	Goose	14.7 mg/kg
	Gosling	2.8 mg/kg
	Guinea pig	240 - 320 mg/kg
	Mouse	17 mg/kg
	Rabbit	17 mg/kg 143 mg/kg
	Rat	66 mg/kg
Sighten (CAC C2 72 7)	Turkey	6.8 mg/kg
Dichlorvos (CAS 62-73-7) <u>Acute</u>		
<u>Acute</u> Dermal		
LD50	Mouse	206 mg/kg
	Rabbit	107 mg/kg
	Rat	70.4 mg/kg
Inhalation		· -·····g···g
LC50	Mouse	0.013 mg/l, 4 Hours

Components	Species	Test Results
Oral	D.	400 "
LD50	Dog	100 mg/kg
	Mouse	61 mg/kg
	Rabbit	10 mg/kg
	Rat	17 mg/kg
Dimethoate (CAS 60-51-5)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 2 g/kg
Oral	Outing a partie	250 400
LD50	Guinea pig	350 - 400 mg/kg
	Mouse	60 mg/kg
	Rabbit	300 mg/kg
	Rat	240 - 336 mg/kg
Ethion (CAS 563-12-2)		
<u>Acute</u>		
Oral	Det	04.4
LD50	Rat	24.4 mg/kg
Etrimfos (CAS 38260-54-7)		
Acute		
Oral LD50	Mouse	437 mg/kg
LD30	Rat	1600 - 1800 mg/kg
Famable was 200 04 2	Rat	1000 - 1000 Hig/kg
Fenchlorphos (CAS 299-84-3)		
<u>Acute</u> Dermal		
LD50	Rabbit	1000 mg/kg
2500	Rat	2000 mg/kg
Oral	Nat	2000 Hig/kg
LD50	Dog	> 500 mg/kg
2500	Rat	1250 mg/kg
Fenitrothion (CAS 122-14-5)	Nat	1256 Highlig
Acute		
<u> Dermal</u>		
LD50	Mouse	> 2500 mg/kg
	Rat	3000 mg/kg
Oral		3 3
LD50	Dog	> 681 mg/kg
	Guinea pig	500 mg/kg
	Mouse	1336 mg/kg
	Rat	500 mg/kg
Fensulfothion (CAS 115-90-2)	Nat	500 mg/kg
Acute		
<u>Acute</u> Oral		
LD50	Rat	1.8 mg/kg
Fenthion (CAS 55-38-9)		3 3
Acute		
Dermal		
LD50	Rat	330 mg/kg

Components	Species	Test Results
Oral		
LD50	Rabbit	150 mg/kg
	Rat	190 mg/kg
onofos (CAS 944-22-9)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	25 mg/kg
	Rat	147 mg/kg
Inhalation		
LC50	Rat	1.9 mg/l, 1 Hours
Oral		•
LD50	Mouse	14 mg/kg
	Rat	8 mg/kg
falathion (CAS 121-75-5)	Nat	o mg/kg
Acute		
<u>Acute</u> Dermal		
LD50	Mouse	2330 mg/kg
2500	Rabbit	2460 - 6150 mg/kg
Late of the Co	Nabbit	2400 - 0130 Hig/kg
Inhalation	Det	0.0420
LC50	Rat	0.0438 mg/l, 4 Hours
Oral		
LD50	Guinea pig	570 mg/kg
	Mouse	190 mg/kg
	Rabbit	250 mg/kg
	Rat	290 mg/kg
Methamidophos (CAS 10265	-92-6)	
<u>Acute</u>		
Dermal		
LD50	Rabbit	118 mg/kg
	Rat	85 mg/kg
Oral		
LD50	Hen	25 mg/kg
	Mouse	14 mg/kg
	Rabbit	10 mg/kg
	Rat	14 mg/kg
Methidathion (CAS 950-37-8)		
Acute		
Dermal	Dobbit	200 mg/kg
LD50	Rabbit	
	Rat	1546 mg/kg
Inhalation		
LC50	Rat	19 mg/l, 1 Hours
		3.6 mg/l
Oral		
LD50	Dog	200 mg/kg
	Guinea pig	25 mg/kg
	Hen	80 mg/kg
	Mouse	18 mg/kg
	1410400	10 mg/kg

Rabit Rabit 25 mg/kg Rat Rabit	Components	Species	Test Results
Acute Dormal LD50 Rabbit 300 mg/kg Oral LD50 Guinea pig 417 mg/kg LD50 Guinea pig 417 mg/kg Monocrotophos (CAS 6823-22-4) Rat 14 mg/kg Acute Dormal 112 mg/kg Inblation Rat 112 mg/kg LC50 Rat 0.08 mg/l, 4 Hours Oral Rat 18 mg/kg Demethate (CAS 1113-02-6) Rat 20 - 50 mg/kg Acute inhalation Rat 18 mg/kg LC50 Rat > 1.5 mg/l, 1 Hours Oral LC50 Rat > 1.5 mg/l, 1 Hours Oral End 125 mg/kg LD50 Cat 50 mg/kg Rat 2 5 mg/kg 60 mg/kg Parathion (CAS 56-38-2) Acute 19 mg/kg Dermal LD50 Mouse 2 mg/kg Parathion (CAS 56-38-2) Acute 0.8 mg/kg Dermal LD50 Mouse 19 mg/kg Par		Rabbit	80 mg/kg
		Rat	25 mg/kg
Dormal LDGO	Methyl parathion (CAS 298-00	0-0)	
LD50 Rabbit 300 mg/kg Oral LD50 Quinea pig 417 mg/kg Rat 141 mg/kg Monocrotophos (CAS 6923-22-4) Acute Dermal LD50 Rabbit 354 mg/kg Inhalation LC50 Rat 30.08 mg/l, 4 Hours Oral LD50 Rat 20 - 50 mg/kg Inhalation LD50 Domestic goat 20 - 50 mg/kg Rat 20 - 50 mg/kg Rat 30 - 50 mg/kg Rat 30 - 50 mg/kg Pacute Inhalation LC50 Rat 3113-02-6) Acute Inhalation LC50 Rat 3113-02-6 Rat 30 mg/l, 4 Hours Oral LD50 Gat 50 mg/kg Hen 125 mg/kg Hen 125 mg/kg Rat 30 mg/kg Rat 30 mg/kg Pacute Dermal 125 mg/kg Rat 30 mg/kg Pacute Dermal 125 mg/kg Rat 30 mg/kg Rat 30 mg/kg Rat 30 mg/kg Pacute Dermal 125 mg/kg Rat 30 mg/kg Rat 30 mg/kg Pacute Dermal 125 mg/kg Rat 30 mg/kg Pacute Dermal 125 mg/kg Rat 30 mg/kg Pacute Dermal 125 mg/kg Rat 30 mg/kg Pacute 30 mg/kg Rat 30 mg/kg Pacute 30 mg/kg Rat 30 mg/kg Pacute 30 mg/kg Pac	<u>Acute</u>		
LD50 Guinea pig 417 mg/kg Rat 14 mg/kg MONOCCOTOCIDADOS (CAS 6923-22-4) MONOCCOTOCIDADOS (CAS 6923-22-4) Acute Dermal LD50 Rabbit 354 mg/kg Inhalation LC50 Rat 0.08 mg/l, 4 Hours Oral LD50 Domestic goat 20 - 50 mg/kg Rat 18 mg/kg Monoccotocidados Rat 20 - 50 mg/kg Rat 18 mg/kg Monoccotocidados Rat 20 - 50 mg/kg Monoccotocidados Rat 20 - 1.5 mg/l, 1 Hours Parallion (CAS 1113-02-6) Acute 100 mg/kg Hen 125 mg/kg Monoccotocidados Rabbit 25 mg/kg Rat 25 mg/kg Parallion (CAS 58-38-2) Parallion (CAS 58-38-2) Parallion (CAS 58-38-2) Rat 20 - 20 mg/kg Monoccotocidados Rate 20 mg/kg Rat 20 - 20 mg/kg Rat 20 - 20 mg/kg Monoccotocidados Rate 20 mg/kg Parallion (CAS 58-38-2) Parallion (CAS 58-38-2) Rat 20 - 20 mg/kg Rat 20 - 20 mg/kg Acute 20 mg/kg Rat 20 - 50 mg/kg Parallion (CAS 2310-17-0) Acute 20 mg/kg Rat 20 mg/kg Rat 20 mg/kg Phosalone (CAS 2310-17-0) Acute 20 mg/kg Acute 20 mg/kg Rat 20 mg/kg Rat 20 mg/kg Phosalone (CAS 2310-17-0) Acute 20 mg/kg Acute 20 mg/kg Acute 20 mg/kg Phosalone (CAS 2310-17-0)		Rabbit	300 mg/kg
Rat		Outro a min	447
Acute	LD50		
	Mara a sustanta a ha a 1000 0000 00		14 mg/kg
Dermal DESO Rabbit 354 mg/kg 354 mg/kg 112 mg/kg 113		2-4)	
LD50			
Rat		Rabbit	354 mg/kg
Inhalation			
LC50	Inhalation		3 3
LD50 Domestic goat 20 - 50 mg/kg Rat 18 mg/kg Dreschoots (CAS 1113-02-6) Acute Inhalation LC50 Rat - 50 mg/kg Oral LD50 Cat 50 mg/kg Guinea pig 100 mg/kg Hen 125 mg/kg Ratbott 25 mg/kg Ratbott 26 mg/kg Ratbott 26 mg/kg Ratbott 26 mg/kg Ratbott 26 mg/kg Ratbott 27 mg/kg Ratbott 27 mg/kg Ratbott 27 mg/kg Parathion (CAS 56-38-2) Acute Dermal LD50 Mouse 19 mg/kg Parathion (CAS 56-38-2) Acute Dermal LD50 Mouse 19 mg/kg Inhalation 27 mg/kg Inhalation 28 mg/kg Inhalation 38 mg/kg Inhalation 39 mg/kg Rat 0.084 mg/l, 4 Hours Oral LD50 Domestic goat 0.084 mg/l, 4 Hours Parathion (CAS 2310-17-0) Acute Oral LD50 Mouse 5 mg/kg Rat 0.084 mg/l, 4 Hours Prosalone (CAS 2310-17-0) Acute Oral LD50 Gat 112 mg/kg Guinea pig 150 mg/kg		Rat	0.08 mg/l, 4 Hours
Rat 18 mg/kg 19	Oral		
	LD50	Domestic goat	20 - 50 mg/kg
Acute Inhalation		Rat	18 mg/kg
Inhalation	Omethoate (CAS 1113-02-6)		
LC50 Rat > 1.5 mg/l, 1 Hours Oral Cat 50 mg/kg LD50 Cat 50 mg/kg Guinea pig 100 mg/kg Hen 125 mg/kg Mouse 24 mg/kg Rabbit 50 mg/kg Parathion (CAS 56-38-2) 25 mg/kg Acute 9 mg/kg Dermal 15 mg/kg LD50 Mouse 19 mg/kg Inhalation 2 mg/kg LC50 Dog > 0.037 mg/l, 4 Hours Rat 0.084 mg/l, 4 Hours Oral 2 mg/kg Phosalone (CAS 2310-17-0) Acute 2 mg/kg Oral LD50 Cat 112 mg/kg Coral 112 mg/kg 150 mg/kg	<u>Acute</u>		
Oral LD50 Cat 50 mg/kg Guinea pig 100 mg/kg Hen 125 mg/kg Mouse 24 mg/kg Rabbit 50 mg/kg Rat 25 mg/kg Parathion (CAS 56-38-2) Acute 5 mg/kg Dermal LD50 Mouse 19 mg/kg LD50 Rat 6.8 mg/kg Inhalation LC50 pag > 0.037 mg/l, 4 Hours LD50 Rat 0.084 mg/l, 4 Hours Oral End 28 - 56 mg/kg Phosalone (CAS 2310-17-0) Acute 2 mg/kg Oral End 2 mg/kg LD50 Cat 112 mg/kg Oral LD50 Cat 112 mg/kg LD50 Cat 5 mg/kg			
LD50 Cat 50 mg/kg Guinea pig 100 mg/kg Hen 125 mg/kg Mouse 24 mg/kg Acute 50 mg/kg Dermal 25 mg/kg LD50 Mouse 19 mg/kg Inhalation Kat 6.8 mg/kg LC50 Dog > 0.037 mg/l, 4 Hours Oral Kat 0.084 mg/l, 4 Hours Domestic goat 28 - 56 mg/kg Phosalone (CAS 2310-17-0) Rat 2 mg/kg Acute Oral 12 mg/kg Oral LD50 Cat 112 mg/kg LD50 Cat Guinea pig 150 mg/kg		Rat	> 1.5 mg/l, 1 Hours
Guinea pig 100 mg/kg 125		0-4	50 m m/l m
Hen	LD50		
Mouse 24 mg/kg Rabbit 50 mg/kg Rat 25 mg/kg Parathion (CAS 56-38-2) Acute Dermal LD50 Mouse 19 mg/kg Rat 6.8 mg/kg Inhalation LC50 Dog Acute Rat 0.084 mg/l, 4 Hours Oral LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Mouse 5 mg/kg Phosalone (CAS 2310-17-0) Acute Oral LD50 Cat 3112 mg/kg Guinea pig 150 mg/kg 112 mg/kg			
Rabbit 50 mg/kg Parathion (CAS 56-38-2) Acute Dermal LD50 Mouse 19 mg/kg Inhalation LC50 Dog Acute Rat 0.0037 mg/l, 4 Hours Rat 0.0084 mg/l, 4 Hours Oral LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Phosalone (CAS 2310-17-0) Acute Oral LD50 Cat 112 mg/kg Guinea pig 150 mg/kg			
Parathion (CAS 56-38-2) Acute			
Acute Dermal LD50 Mouse 19 mg/kg Inhalation Kat 6.8 mg/kg LC50 Dog > 0.037 mg/l, 4 Hours Coral Rat 0.084 mg/l, 4 Hours LD50 Domestic goat 28 - 56 mg/kg LD50 Mouse 5 mg/kg Phosalone (CAS 2310-17-0) Rat 2 mg/kg Phosalone (CAS 2310-17-0) Acute Toral 112 mg/kg LD50 Cat 112 mg/kg Guinea pig 150 mg/kg 150 mg/kg			
Acute Dermal 19 mg/kg LD50 Mouse 19 mg/kg Inhalation C50 Dog > 0.037 mg/l, 4 Hours LC50 Rat 0.084 mg/l, 4 Hours Oral LD50 Domestic goat 28 - 56 mg/kg LD50 Mouse 5 mg/kg Rat 2 mg/kg Phosalone (CAS 2310-17-0) Acute 2 mg/kg Oral LD50 Cat 112 mg/kg LD50 Cat 150 mg/kg		Rat	25 mg/kg
Dermal LD50 Mouse 19 mg/kg Inhalation - 0.037 mg/l, 4 Hours LC50 Dog > 0.084 mg/l, 4 Hours Oral - 0.084 mg/l, 4 Hours LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Rat 2 mg/kg Phosalone (CAS 2310-17-0) Acute Oral Cat 112 mg/kg LD50 Guinea pig 150 mg/kg			
LD50 Mouse 19 mg/kg Inhalation Inhalation Image: North of the properties of the prope	· · · · · · · · · · · · · · · · · · ·		
Nation N		Mouse	19 ma/ka
Inhalation			
LC50 Dog > 0.037 mg/l, 4 Hours Oral Value Value LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Phosalone (CAS 2310-17-0) Acute 7 mg/kg Oral LD50 Cat 112 mg/kg LD50 Guinea pig 150 mg/kg	Inhalation		5.5
Oral LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Phosalone (CAS 2310-17-0) 2 mg/kg Acute Oral LD50 Cat 112 mg/kg LD50 mg/kg 150 mg/kg		Dog	> 0.037 mg/l, 4 Hours
Oral LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Rat 2 mg/kg Phosalone (CAS 2310-17-0) Acute Oral LD50 Cat 112 mg/kg Guinea pig 150 mg/kg			
LD50 Domestic goat 28 - 56 mg/kg Mouse 5 mg/kg Rat 2 mg/kg Phosalone (CAS 2310-17-0) Acute Oral LD50 Cat 112 mg/kg LD50 Guinea pig 150 mg/kg	Oral		•
Rat 2 mg/kg Phosalone (CAS 2310-17-0) Acute Oral LD50 Cat 112 mg/kg Guinea pig 150 mg/kg		Domestic goat	28 - 56 mg/kg
Phosalone (CAS 2310-17-0)		Mouse	5 mg/kg
Acute Oral LD50 Cat 112 mg/kg Guinea pig 150 mg/kg		Rat	2 mg/kg
Acute Oral LD50 Cat 112 mg/kg Guinea pig 150 mg/kg	Phosalone (CAS 2310-17-0)		
LD50 Cat 112 mg/kg Guinea pig 150 mg/kg			
Guinea pig 150 mg/kg			
	LD50	Cat	112 mg/kg
Mouse 73 mg/kg		Guinea pig	150 mg/kg
		Mouse	73 mg/kg

Components	Species	Test Results
	Rat	85 mg/kg
Phosmet (CAS 732-11-6)		
<u>Acute</u>		
Inhalation		
LC50	Rat	2.76 mg/l, 1 Hours
Oral		
LD50	Mouse	160 mg/kg
	Rat	26 mg/kg
Pirimiphos-ethyl (CAS 2350	5-41-1)	
Acute		
Oral	Cuinas nis	EO malka
LD50	Guinea pig	50 mg/kg
	Mouse	105 mg/kg
	Rat	140 mg/kg
Pirimiphos-methyl (CAS 292	232-93-7)	
Acute		
Dermal LD50	Rat	2000 mg/kg
	Rai	2000 Hig/kg
Inhalation LC50	Rat	> 5.04 mg/l, 4 Hours
Oral	Nat	> 5.04 mg/l, 4 Hours
LD50	Cat	575 mg/kg
LDOO	Dog	1500 mg/kg
		1000 mg/kg
	Guinea pig Hen	
		30 mg/kg
	Mouse	1030 mg/kg
	Rabbit	1150 mg/kg
	Rat	1250 mg/kg
Profenofos (CAS 41198-08-	7)	
<u>Acute</u>		
Dermal LD50	Rabbit	192 mg/kg
LD30	Rat	> 2000 mg/kg, 24 Hours
	Rai	> 2000 flig/kg, 24 Hours
Inhalation Aerosol		
LC50	Rat	> 2.03 mg/l, 4 Hours
Oral	1 (6)	2.00 mg/, 1110uic
LD50	Chicken	1.9 mg/kg
	Mouse	162 mg/kg
	Rabbit	700 mg/kg
	Rat	492 mg/kg
Taluana (CAS 100 00 2)	Nat	+oz myrny
Toluene (CAS 108-88-3) <u>Acute</u>		
<u>Acute</u> Dermal		
LD50	Rabbit	> 5000 mg/kg
		14.1 ml/kg
Inhalation		i i. i iiwng
LC50	Mouse	6405 - 7436 ppm, 6 Hours
		

Components	Species	Test Results
		5320 ppm, 8 Hours
		400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
		5879 - 6281 ppm, 6 Hours
		12.5 - 28.8 mg/l, 4 Hours
Oral		
LD50	Rat	2.6 g/kg
Other		
LD50	Mouse	59 mg/kg
	Rat	1332 mg/kg

^{*} Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

Causes serious eye irritation.

irritation

Respiratory or skin sensitization

ACGIH Sensitization

Azinphos-methyl (CAS 86-50-0) Dermal sensitization Dichlorvos (CAS 62-73-7) Dermal sensitization

Respiratory sensitization Not a respiratory sensitizer.

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

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

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

Malathion (CAS 121-75-5)

Methyl parathion (CAS 298-00-0)

Parathion (CAS 56-38-2)

Toluene (CAS 108-88-3)

3 Not classifiable as to carcinogenicity to humans.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity -

single exposure

May cause drowsiness and dizziness.

Specific target organ toxicity -

repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects May cause damage to organs through prolonged or repeated exposure. 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)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 50 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.36 - 3 mg/l, 96 hours

Components		Species	Test Results	
Azinphos-ethyl (CAS 2	642-71-9)			
Aquatic				
Crustacea	EC50	Water flea (Daphnia pulex)	0.0018 - 0.0058 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	0.0009 - 0.0012 mg/l, 96 hours	
Azinphos-methyl (CAS Aquatic	86-50-0)			
Crustacea	EC50	Water flea (Daphnia magna)	0.0012 - 0.002 mg/l, 48 hours	
Fish	LC50	Topsmelt (Atherinops affinis)	0.0027 - 0.0042 mg/l, 96 hours	
Bromophos ethyl (CAS	S 4824-78-6)			
Fish	LC50	Western mosquitofish (Gambusia affinis)	1.5 mg/l, 96 hours	
Diazinon (CAS 333-41		,	3 /	
Aquatic	- /			
Crustacea	EC50	Water flea (Daphnia pulex)	0.0007 - 0.0012 mg/l, 48 hours	
Fish	LC50	Common eel (Anguilla anguilla)	0.066 - 0.102 mg/l, 96 hours	
			0.066 - 0.102 mg/l, 96 hours	
Dichlorvos (CAS 62-73	3-7)		3 ·	
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	
Dimethoate (CAS 60-5	51-5)			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	0.48 - 0.66 mg/l, 48 hours	
Fish	LC50	Brown trout (Salmo trutta)	0.13 mg/l, 96 hours	
Ethion (CAS 563-12-2))			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	0 - 0.0001 mg/l, 48 hours	
Fish	LC50	Guppy (Poecilia reticulata)	0.1 - 0.17 mg/l, 96 hours	
Fenchlorphos (CAS 29 Aquatic	99-84-3)			
Crustacea	EC50	Brown shrimp (Penaeus aztecus)	0.0052 mg/l, 48 hours	
Fish	LC50	Fathead minnow (Pimephales promelas)	0.305 mg/l, 96 hours	
Fenitrothion (CAS 122	-14-5)			
Aquatic	•			
Crustacea	EC50	Water flea (Daphnia magna)	0.003 - 0.005 mg/l, 48 hours	
Fish	LC50	Atlantic salmon (Salmo salar)	0.7 - 1.3 mg/l, 96 hours	
Fensulfothion (CAS 11 Aquatic	5-90-2)			
Fish	LC50	Bluegill (Lepomis macrochirus)	0.009 - 0.1 mg/l, 96 hours	
Fenthion (CAS 55-38-9	9)	,	Ç.	
Crustacea	EC50	Water flea (Simocephalus serrulatus)	0.0004 - 0.0009 mg/l, 48 hours	
Fish	LC50	Largemouth bass (Micropterus salmoides)	0.736 - 2.01 mg/l, 96 hours	
Fonofos (CAS 944-22-	9)			
Aquatic	-,			
Crustacea	EC50	Brown shrimp (Penaeus aztecus)	0.0019 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	0.0041 - 0.0081 mg/l, 96 hours	
-		J (- p)	J.,	

Components		Species	Test Results	
Malathion (CAS 121-7	5-5)			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	0.0007 - 0.0014 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	0.04 - 0.052 mg/l, 96 hours	
Mecarbam (CAS 2595 Aquatic	-54-2)			
Fish	LC50	Harlequinfish, red rasbora (Rasbora heteromorpha)	0.004 mg/l, 96 hours	
Methamidophos (CAS Aquatic	10265-92-6)			
Fish	LC50	Nile tilapia (Tilapia nilotica)	24.3 - 35 mg/l, 96 hours	
Methidathion (CAS 95) Aquatic	0-37-8)			
Fish	LC50	Bluegill (Lepomis macrochirus)	0.006 - 0.013 mg/l, 96 hours	
Methyl parathion (CAS Aquatic	3 298-00-0)			
Crustacea	EC50	Water flea (Daphnia magna)	0.0001 - 0.0002 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	1.6 mg/l, 96 hours	
Monocrotophos (CAS Aquatic	6923-22-4)			
Crustacea	EC50	Brown shrimp (Penaeus aztecus)	0.069 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	4 mg/l, 96 hours	
Omethoate (CAS 1113 Aquatic	3-02-6)			
Crustacea	EC50	Water flea (Daphnia magna)	0.021 mg/l, 48 hours	
Fish	LC50	Tooth carp (Aphanius fasciatus)	1.51 mg/l, 96 hours	
Parathion (CAS 56-38-Aquatic	-2)			
Crustacea	EC50	Water flea (Daphnia pulex)	0.0004 - 0.0008 mg/l, 48 hours	
Fish	LC50	Guppy (Poecilia reticulata)	0.056 mg/l, 96 hours	
Phosalone (CAS 2310		cappy (i cooma rondulata)	e.eee mg/i, ee nedie	
Aquatic	11 0)			
Fish	LC50	Bluegill (Lepomis macrochirus)	0.07 - 0.14 mg/l, 96 hours	
Phosmet (CAS 732-11 Aquatic	-6)		- '	
Crustacea	EC50	Water flea (Daphnia magna)	0.0042 - 0.0084 mg/l, 48 hours	
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.066 - 0.167 mg/l, 96 hours	
Pirimiphos-methyl (CA	S 29232-93-7)			
Aquatic Fish	LC50	Nile tilapia (Tilapia nilotica)	0.0031 - 0.004 mg/l, 96 hours	
Profenofos (CAS 4119	98-08-7)			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	0.0004 - 0.0006 mg/l, 48 hours	
Fish	LC50	Bluegill (Lepomis macrochirus)	0.0101 - 0.0181 mg/l, 96 hours	
Quinalphos (CAS 1359 Aquatic	93-03-8)			
Fish	LC50	Channelfish (Nuria danrica)	0.07 mg/l, 96 hours	

Components Species Test Results

Toluene (CAS 108-88-3)

Aquatic

Crustacea EC50 Water flea (Daphnia magna) 5.46 - 9.83 mg/l, 48 hours
Fish LC50 Coho salmon, silver salmon 8.11 mg/l, 96 hours

(Oncorhynchus kisutch)

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

Bioaccumulative potential

Partition	coefficient i	n-octanol /	water	(log	Kow)	١
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Acephate	-0.85
Azinphos-ethyl	3.4
Azinphos-methyl	2.75
Bromophos ethyl	6.15
Bromophos methyl	5.21
Diazinon	3.81
Dichlorvos	1.43
Ethion	5.073
Fenchlorphos	5.07
Fenitrothion	3.3
Fensulfothion	2.23
Fenthion	4.091
Fonofos	3.94
Malathion	2.36
Methamidophos	-0.8
Methidathion	2.2
Methyl parathion	2.86
Monocrotophos	-0.2
Omethoate	-0.74
Parathion	3.83
Phosmet	2.83
Pirimiphos-ethyl	4.85
Pirimiphos-methyl	4.12
Profenofos	4.68
Toluene	2.73

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect 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 codeThe 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

 Parathion (CAS 56-38-2)
 P089

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.

^{*} Estimates for product may be based on additional component data not shown.

14. Transport information

DOT

UN1294 **UN** number

Toluene, solution (Toluene RQ = 1003 LBS), MARINE POLLUTANT **UN** proper shipping name

Transport hazard class(es)

3 Class Subsidiary risk 3 Label(s) П Packing group **Environmental hazards**

> Marine pollutant Yes

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Special provisions IB2, T4, TP1

150 Packaging exceptions Packaging non bulk 202 242 Packaging bulk

IATA

UN1294 **UN number**

UN proper shipping name Toluene solution (Toluene)

Transport hazard class(es)

Class 3 Subsidiary risk Packing group Ш **Environmental hazards** Yes **ERG Code** 3L

Other information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only Allowed.

IMDG

UN number UN1294

UN proper shipping name TOLUENE SOLUTION (Toluene), MARINE POLLUTANT Transport hazard class(es)

Class 3 Subsidiary risk П Packing group

Environmental hazards

Marine pollutant Yes F-E, S-D

EmS 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

Not established.

the IBC Code

DOT



IATA; IMDG



Marine pollutant



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.

One or more components are not listed on TSCA.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Azinphos-methyl (CAS 86-50-0) Listed. Diazinon (CAS 333-41-5) Listed. Dichlorvos (CAS 62-73-7) Listed. Dimethoate (CAS 60-51-5) Listed. Ethion (CAS 563-12-2) Listed. Malathion (CAS 121-75-5) Listed. Methyl parathion (CAS 298-00-0) Listed. Parathion (CAS 56-38-2) Listed. Toluene (CAS 108-88-3) Listed.

SARA 304 Emergency release notification

Azinphos-ethyl (CAS 2642-71-9) 100 LBS Azinphos-methyl (CAS 86-50-0) 1 LBS Dichlorvos (CAS 62-73-7) **10 LBS** Dimethoate (CAS 60-51-5) **10 LBS** Ethion (CAS 563-12-2) **10 LBS** Fensulfothion (CAS 115-90-2) 500 LBS Fonofos (CAS 944-22-9) 500 LBS Methamidophos (CAS 10265-92-6) 100 LBS Methidathion (CAS 950-37-8) 500 LBS Methyl parathion (CAS 298-00-0) 100 LBS Monocrotophos (CAS 6923-22-4) **10 LBS** Parathion (CAS 56-38-2) **10 LBS** Pirimiphos-ethyl (CAS 23505-41-1) 1000 LBS

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value
Azinphos-ethyl	2642-71-9	100		100 lbs	10000 lbs
Azinphos-methyl	86-50-0	1		10 lbs	10000 lbs
Dichlorvos	62-73-7	10	1000 lbs		
Dimethoate	60-51-5	10		500 lbs	10000 lbs
Ethion	563-12-2	10	1000 lbs		
Fensulfothion	115-90-2	500	500 lbs		
Fonofos	944-22-9	500	500 lbs		
Methamidophos	10265-92-6	100		100 lbs	10000 lbs
Methidathion	950-37-8	500		500 lbs	10000 lbs
Methyl parathion	298-00-0	100		100 lbs	10000 lbs
Monocrotophos	6923-22-4	10		10 lbs	10000 lbs
Parathion	56-38-2	10	100 lbs		
Pirimiphos-ethyl	23505-41-1	1000	1000 lbs		
SARA 311/312 Haza chemical	rdous No				
SARA 313 (TRI repo	rting)				
Chemical name			CAS number	% by wt.	
Toluene			108-88-3	99 - 100	

Toluene Other federal regulations

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

Dichlorvos (CAS 62-73-7) Parathion (CAS 56-38-2)

Toluene (CAS 108-88-3)

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

Not regulated.

Safe Drinking Water Act Not regulated.

(SDWA)

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and **Chemical Code Number**

Toluene (CAS 108-88-3) 6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

35 %WV Toluene (CAS 108-88-3)

DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

US state regulations

US - New Jersey RTK - Substances: Listed substance

Acephate (CAS 30560-19-1)

Azinphos-ethyl (CAS 2642-71-9)

Azinphos-methyl (CAS 86-50-0)

Diazinon (CAS 333-41-5)

Dichlorvos (CAS 62-73-7)

Dimethoate (CAS 60-51-5)

Ethion (CAS 563-12-2)

Fenchlorphos (CAS 299-84-3)

Fensulfothion (CAS 115-90-2)

Fenthion (CAS 55-38-9)

Fonofos (CAS 944-22-9)

Malathion (CAS 121-75-5)

Methamidophos (CAS 10265-92-6)

Methidathion (CAS 950-37-8)

Methyl parathion (CAS 298-00-0)

Monocrotophos (CAS 6923-22-4)

Parathion (CAS 56-38-2)

Phosalone (CAS 2310-17-0)

Phosmet (CAS 732-11-6)

Pirimiphos-ethyl (CAS 23505-41-1)

Pirimiphos-methyl (CAS 29232-93-7)

Profenofos (CAS 41198-08-7)

Toluene (CAS 108-88-3)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.

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

Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Azinphos-ethyl (CAS 2642-71-9)

Azinphos-methyl (CAS 86-50-0)

Diazinon (CAS 333-41-5)

Dichlorvos (CAS 62-73-7)

Dimethoate (CAS 60-51-5)

Ethion (CAS 563-12-2)

Fenchlorphos (CAS 299-84-3)

Fenitrothion (CAS 122-14-5)

Fensulfothion (CAS 115-90-2)

Fenthion (CAS 55-38-9)

Fonofos (CAS 944-22-9)

Malathion (CAS 121-75-5)

Methamidophos (CAS 10265-92-6)

Methidathion (CAS 950-37-8)

Methyl parathion (CAS 298-00-0)

Monocrotophos (CAS 6923-22-4)

Parathion (CAS 56-38-2)

Phosmet (CAS 732-11-6)

Pirimiphos-ethyl (CAS 23505-41-1)

Profenofos (CAS 41198-08-7)

Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

Acephate (CAS 30560-19-1)

Azinphos-ethyl (CAS 2642-71-9)

Azinphos-methyl (CAS 86-50-0)

Diazinon (CAS 333-41-5)

Dichlorvos (CAS 62-73-7)

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Pirimiphos-methyl (CAS 29232-93-7)

Profenofos (CAS 41198-08-7)

Toluene (CAS 108-88-3)

US. Pennsylvania RTK - Hazardous Substances

Azinphos-ethyl (CAS 2642-71-9)

Azinphos-methyl (CAS 86-50-0)

Diazinon (CAS 333-41-5)

Dichlorvos (CAS 62-73-7)

Dimethoate (CAS 60-51-5)

Ethion (CAS 563-12-2)

Fenchlorphos (CAS 299-84-3)

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Parathion (CAS 56-38-2)

Phosmet (CAS 732-11-6)

Pirimiphos-ethyl (CAS 23505-41-1)

Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Azinphos-ethyl (CAS 2642-71-9)

Azinphos-methyl (CAS 86-50-0)

Diazinon (CAS 333-41-5)

Dichlorvos (CAS 62-73-7)

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Parathion (CAS 56-38-2)

Phosmet (CAS 732-11-6)

Pirimiphos-ethyl (CAS 23505-41-1)

Toluene (CAS 108-88-3)

US. Rhode Island RTK

Acephate (CAS 30560-19-1)

Azinphos-ethyl (CAS 2642-71-9)

Azinphos-methyl (CAS 86-50-0)

Diazinon (CAS 333-41-5)

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Pirimiphos-methyl (CAS 29232-93-7)

Profenofos (CAS 41198-08-7)

Toluene (CAS 108-88-3)

US. California Proposition 65

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

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

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

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

Toluene (CAS 108-88-3) Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin Listed: August 7, 2009

Toluene (CAS 108-88-3)

International Inventories

Country(s) or region On inventory (yes/no)* Inventory name Australian Inventory of Chemical Substances (AICS) Australia No Canada Domestic Substances List (DSL) No

Country(s) or region	Inventory name	On inventory (yes/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)	Yes

European List of Notified Chemical Substances (ELINCS) Europe Nο Japan Inventory of Existing and New Chemical Substances (ENCS) Nο Korea Existing Chemicals List (ECL) No New Zealand New Zealand Inventory No **Philippines** No

Philippine Inventory of Chemicals and Chemical Substances

(PICCS)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

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

05-12-2016 Issue date

Version #

NFPA ratings Health: 2

Flammability: 3 Instability: 0

Disclaimer

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