

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture  
Product name : 8141 OP Pesticides  
Product code : AL0-101255  
Product group : Trade product

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : Laboratory Use  
Industrial/Professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Certified reference material for laboratory use only

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Phenova  
6390 Joyce Dr. Suite 100  
80403 Golden, CO - United States  
T 1-866-942-2978 - F 1-866-283-0269  
[info@phenova.com](mailto:info@phenova.com) - [www.phenova.com](http://www.phenova.com)

#### 1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924  
ChemTel Assistance (International) +1 813-248-0585

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225  
Skin Irrit. 2 H315  
Repr. 2 H361  
STOT SE 3 H336  
STOT RE 2 H373  
Asp. Tox. 1 H304  
Aquatic Acute 1 H400  
Aquatic Chronic 1 H410

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Repr.Cat.3; R62  
F; R11  
Xn; R65  
Xn; R48/20  
Xi; R38  
N; R50/53  
R5  
R67

Full text of R-phrases: see section 16

##### Adverse physicochemical, human health and environmental effects

No additional information available

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### 2.2. Label elements

#### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) : Danger

Hazardous ingredients : hexane

Hazard statements (CLP) :

- H225 - Highly flammable liquid and vapor
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H336 - May cause drowsiness or dizziness
- H361 - Suspected of damaging fertility or the unborn child
- H373 - May cause damage to organs through prolonged or repeated exposure
- H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :

- P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- P233 - Keep container tightly closed
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P271 - Use only outdoors or in a well-ventilated area
- P273 - Avoid release to the environment
- P280 - Wear protective gloves/protective clothing/eye protection/face protection
- P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P308+P313 - IF exposed or concerned: Get medical advice/attention
- P403+P235 - Store in a well-ventilated place. Keep cool
- P405 - Store locked up
- P270 - Do not eat, drink or smoke when using this product

No labeling applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
hexane (Component)	(CAS No) 110-54-3 (EC no) 203-777-6 (EC index no) 601-037-00-0	89.8	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361f STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
acetone (Component)	(CAS No) 67-64-1 (EC no) 200-662-2 (EC index no) 606-001-00-8	9.8	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
azinphos-methyl (Component)	(CAS No) 86-50-0 (EC no) 201-676-1 (EC index no) 015-039-00-9	0.02	Acute Tox. 2 (Oral), H300 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
chlorpyrifos (Component)	(CAS No) 2921-88-2 (EC no) 220-864-4 (EC index no) 015-084-00-4	0.02	Acute Tox. 3 (Oral), H301 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)
diazinon (Component)	(CAS No) 333-41-5 (EC no) 206-373-8 (EC index no) 015-040-00-4	0.02	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
dichlorvos (Component)	(CAS No) 62-73-7 (EC no) 200-547-7 (EC index no) 015-019-00-X	0.02	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10000)

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
disulfoton (Component)	(CAS No) 298-04-4 (EC no) 206-054-3 (EC index no) 015-060-00-3	0.02	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
fensulfothion (Component)	(CAS No) 115-90-2 (EC no) 204-114-3 (EC index no) 015-090-00-7	0.02	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
fenthion (Component)	(CAS No) 55-38-9 (EC no) 200-231-9 (EC index no) 015-048-00-8	0.02	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 3 (Inhalation), H331 Muta. 2, H341 STOT RE 1, H372 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=1000)
methyl parathion (Component)	(CAS No) 298-00-0 (EC no) 206-050-1 (EC index no) 015-035-00-7	0.02	Flam. Liq. 3, H226 Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation), H330 STOT RE 2, H373 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
mevinphos (Component)	(CAS No) 7786-34-7 (EC no) 232-095-1 (EC index no) 015-020-00-5	0.02	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
naled (Component)	(CAS No) 300-76-5 (EC no) 206-098-3 (EC index no) 015-055-00-6	0.02	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 (M=1000)
phorate (Component)	(CAS No) 298-02-2 (EC no) 206-052-2 (EC index no) 015-033-00-6	0.02	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
Tetrachlorvinphos (Component)	(CAS No) 22248-79-9 (EC no) 244-865-4	0.02	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 (M=100)
trichloronate (Component)	(CAS No) 327-98-0 (EC no) 206-326-1 (EC index no) 015-098-00-0	0.02	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410
demeton (Component)	(CAS No) 8065-48-3 (EC index no) 015-118-00-8	0.02	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 (M=10)
Name	Product identifier	Specific concentration limits	
hexane (Component)	(CAS No) 110-54-3 (EC no) 203-777-6 (EC index no) 601-037-00-0	(C >= 5) STOT RE 2, H373	

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after ingestion : May be fatal if swallowed and enters airways.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.  
Explosion hazard : May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Heating may cause an explosion.

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire reaches explosives. Evacuate area.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.  
Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.  
Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area. Keep away from sources of ignition - No smoking.  
Hygiene measures : Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.  
Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a well-ventilated place. Keep away from any flames or sparking source.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

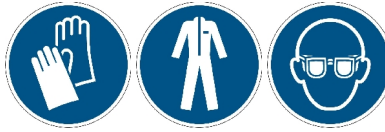
Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

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Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety glasses.



Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical penetration.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

Skin and body protection : Wear suitable protective clothing. Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin contact.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid  
Color : Colorless.  
Odor : characteristic.  
pH : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : No data available  
Flash point : No data available  
Auto-ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : Highly flammable liquid and vapor  
Relative density : No data available  
Solubility : No data available  
Explosive properties : Heating may cause an explosion.  
Oxidizing properties : No data available  
Explosion limits : No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No additional information available

#### 10.2. Chemical stability

Not established. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture. Heating may cause an explosion. Extreme risk of explosion by shock, friction, fire or other sources of ignition.

#### 10.3. Possibility of hazardous reactions

Not established.

#### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks. Overheating.

#### 10.5. Incompatible materials

Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

demeton (8065-48-3)	
LD50 oral rat	2.5 - 12 mg/kg (Rat)
LD50 dermal rat	8.2 - 14 mg/kg (Rat)
LD50 dermal rabbit	24 mg/kg (Rabbit)

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<b>demeton (8065-48-3)</b>	
ATE CLP (oral)	2.500 mg/kg body weight
ATE CLP (dermal)	8.200 mg/kg body weight
<b>azinphos-methyl (86-50-0)</b>	
LD50 oral rat	10 mg/kg (Rat)
LD50 dermal rat	150 - 220 mg/kg (Rat)
LC50 inhalation rat (mg/l)	0.15 mg/l/4h (Rat)
ATE CLP (oral)	10.000 mg/kg body weight
ATE CLP (dermal)	150.000 mg/kg body weight
ATE CLP (gases)	100.000 ppmV/4h
ATE CLP (vapors)	0.150 mg/l/4h
ATE CLP (dust, mist)	0.150 mg/l/4h
<b>chlorpyrifos (2921-88-2)</b>	
LD50 oral rat	82 mg/kg (Rat)
ATE CLP (oral)	82.000 mg/kg body weight
<b>diazinon (333-41-5)</b>	
LD50 oral rat	> 300 mg/kg (Rat)
ATE CLP (oral)	500.000 mg/kg body weight
<b>dichlorvos (62-73-7)</b>	
LD50 oral rat	25 mg/kg (Rat)
LD50 dermal rat	70 mg/kg (Rat)
LD50 dermal rabbit	107 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.015 mg/l/4h (Rat)
ATE CLP (oral)	25.000 mg/kg body weight
ATE CLP (dermal)	70.000 mg/kg body weight
ATE CLP (gases)	100.000 ppmV/4h
ATE CLP (vapors)	0.015 mg/l/4h
ATE CLP (dust, mist)	0.015 mg/l/4h
<b>disulfoton (298-04-4)</b>	
LD50 oral rat	2.6 mg/kg (Rat)
LD50 dermal rat	6 mg/kg (Rat)
ATE CLP (oral)	2.600 mg/kg body weight
ATE CLP (dermal)	6.000 mg/kg body weight
<b>fensulfotion (115-90-2)</b>	
LD50 oral rat	2 mg/kg (Rat)
LD50 dermal rat	3 mg/kg (Rat)
LC50 inhalation rat (mg/l)	0.03 mg/l/4h (Rat)
ATE CLP (oral)	2.000 mg/kg body weight
ATE CLP (dermal)	3.000 mg/kg body weight
ATE CLP (vapors)	0.030 mg/l/4h
ATE CLP (dust, mist)	0.030 mg/l/4h
<b>fenthion (55-38-9)</b>	
LD50 dermal rat	1680 mg/kg (Rat)
LC50 inhalation rat (mg/l)	0.8 mg/l/4h (Rat)
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	1680.000 mg/kg body weight
ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	0.800 mg/l/4h
ATE CLP (dust, mist)	0.800 mg/l/4h
<b>methyl parathion (298-00-0)</b>	
LD50 oral rat	6 mg/kg (Rat)
LD50 dermal rat	67 mg/kg (Rat)
LD50 dermal rabbit	300 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.034 mg/l/4h (Rat)
ATE CLP (oral)	6.000 mg/kg body weight
ATE CLP (dermal)	67.000 mg/kg body weight
ATE CLP (gases)	100.000 ppmV/4h
ATE CLP (vapors)	0.034 mg/l/4h

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<b>methyl parathion (298-00-0)</b>	
ATE CLP (dust, mist)	0.034 mg/l/4h
<b>mevinphos (7786-34-7)</b>	
LD50 oral rat	3 mg/kg (Rat)
LD50 dermal rat	4.2 mg/kg (Rat)
LD50 dermal rabbit	4.7 mg/kg (Rabbit)
ATE CLP (oral)	3.000 mg/kg body weight
ATE CLP (dermal)	4.200 mg/kg body weight
<b>naled (300-76-5)</b>	
LD50 oral rat	430 mg/kg (Rat)
LD50 dermal rabbit	800 mg/kg (Rabbit)
ATE CLP (oral)	430.000 mg/kg body weight
ATE CLP (dermal)	800.000 mg/kg body weight
<b>phorate (298-02-2)</b>	
LD50 oral rat	1 mg/kg (Rat)
LD50 dermal rat	6.2 mg/kg (Rat)
LD50 dermal rabbit	99 mg/kg (Rabbit)
ATE CLP (oral)	1.000 mg/kg body weight
ATE CLP (dermal)	6.200 mg/kg body weight
<b>Tetrachlorvinphos (22248-79-9)</b>	
LD50 oral rat	480 mg/kg
LD50 dermal rabbit	> 2500 mg/kg
ATE CLP (oral)	480.000 mg/kg body weight
<b>trichloronate (327-98-0)</b>	
LD50 oral rat	15 mg/kg (Rat)
LD50 dermal rat	64 mg/kg (Rat)
ATE CLP (oral)	15.000 mg/kg body weight
ATE CLP (dermal)	64.000 mg/kg body weight
<b>hexane (110-54-3)</b>	
LD50 oral rat	25000 mg/kg (Rat; Literature study)
LD50 dermal rabbit	3000 mg/kg (Rabbit; Literature study)
LC50 inhalation rat (ppm)	48000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	25000.000 mg/kg body weight
ATE CLP (dermal)	3000.000 mg/kg body weight
ATE CLP (gases)	48000.000 ppmV/4h
<b>acetone (67-64-1)</b>	
LD50 oral rat	5800 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rabbit	20000 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402)
LC50 inhalation rat (mg/l)	71 mg/l/4h (Rat; Experimental value; 76 mg/l/4h; Rat; Experimental value)
LC50 inhalation rat (ppm)	30000 ppm/4h (Rat; Experimental value)
ATE CLP (oral)	5800.000 mg/kg body weight
ATE CLP (dermal)	20000.000 mg/kg body weight
ATE CLP (gases)	30000.000 ppmV/4h
ATE CLP (vapors)	71.000 mg/l/4h
ATE CLP (dust, mist)	71.000 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified Based on available data, the classification criteria are not met
Respiratory or skin sensitization	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met May cause cancer
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.

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Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Very toxic to aquatic life with long lasting effects.

<b>demeton (8065-48-3)</b>	
LC50 fish 1	0.055 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 Daphnia 1	0.014 mg/l (48 h; <i>Daphnia pulex</i> )
LC50 fish 2	0.151 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
<b>azinphos-methyl (86-50-0)</b>	
LC50 fish 1	0.004 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
EC50 Daphnia 1	0.003 mg/l (48 h; <i>Daphnia pulex</i> )
LC50 fish 2	0.0046 mg/l (96 h; <i>Lepomis macrochirus</i> )
TLM fish 1	1.9 mg/l (96 h; <i>Pimephales promelas</i> ; Pure water)
TLM fish 2	0.005 mg/l (96 h; <i>Lepomis macrochirus</i> )
<b>chlorpyrifos (2921-88-2)</b>	
LC50 fish 1	0.0026 mg/l (96 h; <i>Lepomis macrochirus</i> )
LC50 other aquatic organisms 1	0.00001 mg/l (96 h; <i>Palaemon macrodactylus</i> )
LC50 fish 2	0.003 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
LC50 other aquatic organisms 2	0.0017 mg/l ( <i>Daphnia magna</i> )
TLM fish 1	0.02 mg/l (48 h; Pisces)
TLM fish 2	0.0037 ppm (96 h; <i>Cymatogaster aggregata</i> )
Threshold limit other aquatic organisms 1	0.00001 mg/l (96 h; <i>Palaemon macrodactylus</i> )
Threshold limit other aquatic organisms 2	0.0017 mg/l ( <i>Daphnia magna</i> )
Threshold limit algae 1	0.228 mg/l (96 h; <i>Skeletonema costatum</i> )
<b>diazinon (333-41-5)</b>	
LC50 fish 1	0.090 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
LC50 other aquatic organisms 1	0.0014 mg/l (48 h; <i>Simocephalus serrulatis</i> )
EC50 Daphnia 1	0.00096 mg/l (48 h; <i>Daphnia magna</i> )
EC50 other aquatic organisms 1	17.3 mg/l (120 h; <i>Scenedesmus subspicatus</i> ; Growth rate)
LC50 fish 2	0.168 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 Daphnia 2	0.00041 mg/l (48 h; <i>Ceriodaphnia dubia</i> )
TLM fish 1	0.030 mg/l (48 h; <i>Lepomis macrochirus</i> )
Threshold limit other aquatic organisms 1	0.0014 mg/l (48 h; <i>Simocephalus serrulatis</i> )
Threshold limit algae 1	6.4 mg/l (168 h; <i>Selenastrum capricornutum</i> ; Growth rate)
<b>dichlorvos (62-73-7)</b>	
LC50 fish 1	0.0116 mg/l (96 h; <i>Pimephales promelas</i> )
EC50 Daphnia 1	0.00007 mg/l (48 h; <i>Daphnia pulex</i> )
EC50 other aquatic organisms 1	0.00028 mg/l (48 h; <i>Simocephalus serrulatis</i> )
LC50 fish 2	0.869 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 Daphnia 2	0.00002 mg/l (48 h; <i>Daphnia magna</i> )
Threshold limit algae 1	3.5 mg/l (72 h; Algae)
<b>disulfoton (298-04-4)</b>	
LC50 fish 1	0.039 mg/l (96 h; <i>Lepomis macrochirus</i> )
LC50 other aquatic organisms 1	0.021 mg/l (96 h; <i>Gammarus</i> sp.)
LC50 fish 2	0.25 mg/l (96 h; <i>Poecilia reticulata</i> )
LC50 other aquatic organisms 2	0.038 mg/l (96 h; <i>Palaemonetes</i> sp.)
TLM fish 1	3.9 mg/l (24 h; <i>Cyprinus carpio</i> )
TLM other aquatic organisms 1	55.280 ppm (48 h; <i>Mercenaria mercenaria</i> ; Eggs)
Threshold limit other aquatic organisms 1	0.021 mg/l (96 h; <i>Gammarus</i> sp.)
Threshold limit other aquatic organisms 2	0.038 mg/l (96 h; <i>Palaemonetes</i> sp.)
<b>fensulfothion (115-90-2)</b>	
LC50 fish 1	0.056 mg/l (96 h; <i>Lepomis macrochirus</i> )
LC50 other aquatic organisms 1	0.01 mg/l (96 h; <i>Daphnia magna</i> )



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<b>fensulfthion (115-90-2)</b>	
LC50 fish 2	8.8 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
Threshold limit other aquatic organisms 1	0.01 mg/l (96 h; <i>Daphnia magna</i> )
<b>fenthion (55-38-9)</b>	
LC50 fish 1	0.76 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
LC50 other aquatic organisms 1	0.00062 mg/l (48 h; <i>Simocephalus serrulatis</i> )
EC50 <i>Daphnia</i> 1	0.006 mg/l (48 h; <i>Daphnia magna</i> )
EC50 other aquatic organisms 1	3.33 mg/l (Algae)
LC50 fish 2	0.75 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 <i>Daphnia</i> 2	0.0008 mg/l (48 h; <i>Daphnia pulex</i> )
Threshold limit other aquatic organisms 1	0.00062 mg/l (48 h; <i>Simocephalus serrulatis</i> )
Threshold limit algae 1	1.79 mg/l (96 h; <i>Scenedesmus subspicatus</i> ; Growth rate)
<b>methyl parathion (298-00-0)</b>	
LC50 fish 1	2.7 - 3.7 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
EC50 <i>Daphnia</i> 1	0.00014 mg/l (48 h; <i>Daphnia magna</i> )
LC50 fish 2	4.3 - 5.7 mg/l (96 h; <i>Lepomis macrochirus</i> )
TLM fish 1	1.9 ppm (96 h; <i>Lepomis macrochirus</i> ; Fresh water)
TLM fish 2	8.3 ppm (96 h; <i>Pimephales promelas</i> ; Fresh water)
Threshold limit other aquatic organisms 1	0.0005 mg/l ( <i>Daphnia magna</i> ; Acute)
<b>mevinphos (7786-34-7)</b>	
LC50 fish 1	0.0119 mg/l (96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> ); Technical product)
EC50 <i>Daphnia</i> 1	0.00018 mg/l (48 h; <i>Daphnia pulex</i> )
EC50 other aquatic organisms 1	0.00042 mg/l (48 h; <i>Simocephalus serrulatis</i> )
LC50 fish 2	0.0225 mg/l (96 h; <i>Lepomis macrochirus</i> ; Technical product)
<b>naled (300-76-5)</b>	
LC50 fish 1	2.2 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 other aquatic organisms 1	0.00035 mg/l (48 h; <i>Daphnia pulex</i> )
LC50 fish 2	3.3 mg/l (96 h; <i>Pimephales promelas</i> )
EC50 other aquatic organisms 2	0.0011 mg/l (96 h; <i>Simocephalus serrulatis</i> )
<b>phorate (298-02-2)</b>	
LC50 fish 1	0.0013 mg/l (96 h; <i>Cyprinodon variegatus</i> )
LC50 other aquatic organisms 1	0.0006 mg/l (96 h; <i>Gammarus</i> sp.)
LC50 fish 2	0.013 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
Threshold limit other aquatic organisms 1	0.0006 mg/l (96 h; <i>Gammarus</i> sp.)
Threshold limit algae 1	1.1 - 1.5; <i>Skeletonema costatum</i> ; Growth
<b>Tetrachlorvinphos (22248-79-9)</b>	
LC50 fish 1	0.5 mg/l <i>Lepomis macrochirus</i>
EC50 <i>Daphnia</i> 1	0.002 mg/l 48 h
<b>trichloronate (327-98-0)</b>	
LC50 fish 1	0.22 mg/l (96 h; <i>Lepomis macrochirus</i> )
EC50 <i>Daphnia</i> 1	0.0005 mg/l (48 h; <i>Penaeus</i> sp.)
LC50 fish 2	0.14 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
<b>hexane (110-54-3)</b>	
LC50 fish 1	2.5 mg/l (96 h; <i>Pimephales promelas</i> )
EC50 <i>Daphnia</i> 1	2.1 mg/l (48 h; <i>Daphnia magna</i> )
LC50 fish 2	4 mg/l (24 h; <i>Carassius auratus</i> )
EC50 <i>Daphnia</i> 2	0.4 mg/l (96 h; <i>Chaetogammarus marinus</i> )
Threshold limit other aquatic organisms 1	9.049 mg/l (Protozoa)
Threshold limit algae 1	10 mg/l ( <i>Laminariales</i> ; Photosynthesis)
Threshold limit algae 2	26 mg/l (72 h; <i>Pseudokirchneriella subcapitata</i> ; GLP)
<b>acetone (67-64-1)</b>	
LC50 fish 1	6210 mg/l (96 h; <i>Pimephales promelas</i> ; Nominal concentration)
EC50 <i>Daphnia</i> 1	8800 mg/l (48 h; <i>Daphnia pulex</i> )
LC50 fish 2	5540 mg/l 96 h; <i>Salmo gairdneri</i> ( <i>Oncorhynchus mykiss</i> )
TLM fish 1	13000 ppm (96 h; <i>Gambusia affinis</i> ; Turbulent water)
TLM fish 2	> 1000 ppm (96 h; Pisces)
Threshold limit other aquatic organisms 1	3000 mg/l (Plankton)
Threshold limit other aquatic organisms 2	28 mg/l (Protozoa)

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<b>acetone (67-64-1)</b>	
Threshold limit algae 1	7500 mg/l (Scenedesmus quadricauda; pH = 7)
Threshold limit algae 2	3400 mg/l (48 h; Chlorella sp.)

### 12.2. Persistence and degradability

<b>8141 OP Pesticides</b>	
Persistence and degradability	May cause long-term adverse effects in the environment.
<b>demeton (8065-48-3)</b>	
Persistence and degradability	Biodegradability in soil: no data available.
<b>azinphos-methyl (86-50-0)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>chlorpyrifos (2921-88-2)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>diazinon (333-41-5)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>dichlorvos (62-73-7)</b>	
Persistence and degradability	Biodegradable in water. Biodegradable in the soil.
<b>disulfoton (298-04-4)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>fenthion (55-38-9)</b>	
Persistence and degradability	Non degradable in the soil.
<b>methyl parathion (298-00-0)</b>	
Persistence and degradability	Not readily biodegradable in water. Adsorbs into the soil. Photolysis in the air.
<b>naled (300-76-5)</b>	
Persistence and degradability	Biodegradability in water: no data available. Biodegradable in the soil.
<b>phorate (298-02-2)</b>	
Persistence and degradability	Biodegradability in soil: no data available.
<b>hexane (110-54-3)</b>	
Persistence and degradability	Readily biodegradable in water. Photooxidation in water. easily degradable in the soil.
ThOD	3.52 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.63 % ThOD
<b>acetone (67-64-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.43 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.92 g O <sub>2</sub> /g substance
ThOD	2.20 g O <sub>2</sub> /g substance
BOD (% of ThOD)	(20 day(s)) 0.872

### 12.3. Bioaccumulative potential

<b>8141 OP Pesticides</b>	
Bioaccumulative potential	Not established.
<b>demeton (8065-48-3)</b>	
Bioaccumulative potential	Not bioaccumulative.
<b>azinphos-methyl (86-50-0)</b>	
Log Pow	2.99
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>chlorpyrifos (2921-88-2)</b>	
BCF fish 1	1700 (Pimephales promelas)
BCF fish 2	49 - 2880 (Cyprinus carpio; Test duration: 8 weeks)
BCF other aquatic organisms 1	1 - 10 mg/l (120 h; Algae; Dry weight)
Log Pow	4.82 - 5.27
Bioaccumulative potential	High potential for bioaccumulation (Log Kow > 5).
<b>diazinon (333-41-5)</b>	
BCF fish 1	7 - 46.9 (Cyprinus carpio; Test duration: 6 weeks)
BCF fish 2	470 - 540 (672 h; Lepomis macrochirus)
Log Pow	3.3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)

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<b>diazinon (333-41-5)</b>	
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).
<b>dichlorvos (62-73-7)</b>	
Log Pow	1.4 - 2.03
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
<b>disulfoton (298-04-4)</b>	
Log Pow	3.81 (QSAR)
Bioaccumulative potential	Bioaccumable.
<b>fensulfothion (115-90-2)</b>	
Log Pow	2.23
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
<b>fenthion (55-38-9)</b>	
BCF fish 1	16600 (Poecilia reticulata)
Log Pow	4.09
Bioaccumulative potential	High potential for bioaccumulation ( $\text{BCF} > 5000$ ).
<b>methyl parathion (298-00-0)</b>	
Log Pow	2.86
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
<b>mevinphos (7786-34-7)</b>	
Log Pow	0.13
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
<b>naled (300-76-5)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>trichloronate (327-98-0)</b>	
Log Pow	5.23
Bioaccumulative potential	Bioaccumable.
<b>hexane (110-54-3)</b>	
BCF fish 1	501.187 (Pimephales promelas)
Log Pow	3.5 - 3.94 (Calculated)
Bioaccumulative potential	Bioaccumable.
<b>acetone (67-64-1)</b>	
BCF fish 1	0.69 (Pisces)
BCF other aquatic organisms 1	3
Log Pow	-0.24 (Test data)
Bioaccumulative potential	Not bioaccumulative.
<b>12.4. Mobility in soil</b>	
<b>demeton (8065-48-3)</b>	
Ecology - soil	Soil contaminant. May be harmful to plant growth, blooming and fruit formation. Toxic to bees.
<b>azinphos-methyl (86-50-0)</b>	
Ecology - soil	Toxic to bees.
<b>chlorpyrifos (2921-88-2)</b>	
Ecology - soil	Toxic to bees. May be harmful to plant growth, blooming and fruit formation.
<b>dichlorvos (62-73-7)</b>	
Ecology - soil	Toxic to bees.
<b>disulfoton (298-04-4)</b>	
Ecology - soil	Toxic to bees.
<b>fensulfothion (115-90-2)</b>	
Ecology - soil	Not toxic to plants. Toxic to bees.
<b>fenthion (55-38-9)</b>	
Ecology - soil	Not toxic to plants.
<b>methyl parathion (298-00-0)</b>	
Ecology - soil	Not toxic to plants. Toxic to bees.
<b>mevinphos (7786-34-7)</b>	
Ecology - soil	Not toxic to plants. Toxic to fauna. Toxic to bees.

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<b>naled (300-76-5)</b>	
Ecology - soil	Toxic to bees.
<b>phorate (298-02-2)</b>	
Ecology - soil	Toxic to bees.
<b>trichloronate (327-98-0)</b>	
Ecology - soil	Soil contaminant. Not toxic to plants. Toxic to fauna. Toxic to bees.
<b>hexane (110-54-3)</b>	
Surface tension	0.018 N/m
<b>acetone (67-64-1)</b>	
Surface tension	0.0237 N/m

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Additional information : Avoid release to the environment

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Additional information : Handle empty containers with care because residual vapors are flammable. Hazardous waste due to potential risk of explosion.  
Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR) : 1993  
UN-No.(IATA) : 1993

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, N.O.S.  
Proper Shipping Name (IATA) : FLAMMABLE LIQUID, N.O.S.  
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S.  
Proper Shipping Name (ADN) : FLAMMABLE LIQUID, N.O.S.  
Transport document description (ADR) : UN 1993 FLAMMABLE LIQUID, N.O.S. (hexane(110-54-3) acetone(67-64-1)), 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS

### 14.3. Packing group

Class (ADR) : 3  
Classification code (ADR) : F1  
Class (IATA) : 3  
Class (IMDG) : 3  
Class (ADN) : 3  
Hazard labels (ADR) : 3



Hazard labels (IATA) : 3



### 14.4. Packing group

Packing group (ADR) : II  
Packing group (IATA) : II

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### 14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

### 14.6. Special precautions for user

#### 14.6.1. Overland transport

Hazard identification number (Kemler No.) : 33

Classification code (ADR) : F1

Orange plates :



Special provision (ADR) : 274, 601, 640D

Transport category (ADR) : 2

Tunnel restriction code (ADR) : D/E

Limited quantities (ADR) : 1I

Excepted quantities (ADR) : E2

#### 14.6.2. Transport by sea

No additional information available

#### 14.6.3. Air transport

CAO packing instructions (IATA) : 364

CAO max net quantity (IATA) : 60L

PCA packing instructions (IATA) : 353

PCA Limited quantities (IATA) : Y341

PCA limited quantity max net quantity (IATA) : 1L

PCA max net quantity (IATA) : 5L

PCA Excepted quantities (IATA) : E2

ERG code (IATA) : 3H

#### 14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

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