

SAFETY DATA SHEET



AQUAFIN® 440 EW

Version	Revision Date:	SDS Number:	Date of last issue: 09.11.2022
4.0	08.07.2024	50001286	Date of first issue: 08.07.2024

SECTION 1. IDENTIFICATION

Product name : AQUAFIN® 440 EW

Manufacturer or supplier's details

Company : FMC COLOMBIA S.A.S

Address : CALLE 108 #45-30 TORRE 2
OFICINA 1004 – 1005,
BOGOTÁ, COLOMBIA
+571635150

Emergency telephone : 1 703 / 741-5970 (CHEMTREC - International)
+55 11 4349 1359 (CHEMTREC); +57 601 7942539
(CHEMTREC Bogota)
Colombia: 911

Medical Emergency Number : Desde Bogotá: 288 60 12; Línea Nacional: 01 8000 916012
Desde Ecuador: 1800 593005 (Quito, La Sierra, Centro y Norte).
Desde Perú: SAMU: 106;
CISPROQUIM®: 080-050-847;
FMC LATINOAMERICA S.A. SUCURSAL: 421-4811;
Desde Venezuela: 0800 1005012

Recommended use of the chemical and restrictions on use

Recommended use : Can be used as insecticide only.

Restrictions on use : Use as recommended by the label.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 4

Serious eye damage/eye irritation : Category 2A

Specific target organ toxicity - repeated exposure : Category 2

Short-term (acute) aquatic hazard : Category 1

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Long-term (chronic) aquatic hazard : Category 1

GHS label elements

Hazard pictograms :   

Signal Word : WARNING

Hazard Statements : H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P260 Do not breathe mist or vapors.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
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.

Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards which do not result in classification

Hazard Statements required by Andean Technical Manual for the Registration and Control of Chemical Pesticides for Agricultural Use (Resolution no. 2075):
Harmful if swallowed, in contact with skin or if inhaled.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : insecticide formulation

Components

Chemical name	CAS-No.	Concentration (% w/w)
malathion (ISO) [containing ≤ 0,03 % isomalathion]	121-75-5	≥ 30 -< 50
Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]-	114535-82-9	≥ 2,5 -< 5
2-Propenoic acid, homopolymer	9003-01-4	≥ 0,25 -< 1

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : Wash off with soap and water.
Take off all contaminated clothing immediately.
Wash contaminated clothing before re-use.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed, in contact with skin or if inhaled.
Causes serious eye irritation.
May cause damage to organs through prolonged or repeated exposure.
Skin contact may result in itching and redness. Eye contact may result in itching, watery eyes, light sensitivity, pain, and/or blurred vision.

Protection of first-aiders : Avoid inhalation, ingestion and contact with skin and eyes.

Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

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- | | | |
|--|---|--|
| Suitable extinguishing media | : | Dry chemical, CO2, water spray or regular foam. |
| Unsuitable extinguishing media | : | Do not spread spilled material with high-pressure water streams. |
| Specific hazards during fire fighting | : | Do not allow run-off from fire fighting to enter drains or water courses. |
| Hazardous combustion products | : | Fire may produce irritating, corrosive and/or toxic gases.
phosphorus oxides
Carbon oxides
Sulfur oxides |
| Specific extinguishing methods | : | Remove undamaged containers from fire area if it is safe to do so.
Use a water spray to cool fully closed containers.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. |
| Special protective equipment for fire-fighters | : | Firefighters should wear protective clothing and self-contained breathing apparatus. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Use personal protective equipment.
Ensure adequate ventilation.
If it can be safely done, stop the leak.
Do not touch or walk through the spilled material. |
| Environmental precautions | : | Prevent further leakage or spillage if safe to do so.
Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : | Never return spills in original containers for re-use.
Collect as much of the spill as possible with a suitable absorbent material.
Pick up and transfer to properly labeled containers.
Keep in suitable, closed containers for disposal. |

SECTION 7. HANDLING AND STORAGE

- | | | |
|---|---|--|
| Advice on protection against fire and explosion | : | Normal measures for preventive fire protection. |
| Advice on safe handling | : | Do not breathe vapors/dust.
Avoid contact with skin and eyes.
For personal protection see section 8. |

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Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Do not store near acids.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
malathion (ISO) [containing ≤ 0,03 % isomalathion]	121-75-5	TWA (Inhalable fraction and vapor)	1 mg/m ³	ACGIH

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection
Material : Wear chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures : Plan first aid action before beginning work with this product.

Hygiene measures : Avoid contact with skin, eyes and clothing.
Do not inhale aerosol.
When using do not eat or drink.
When using do not smoke.

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Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid
Form	: suspension
Color	: off-white
Odor	: No data available
Odor Threshold	: No data available
pH	: 4,22 (20 °C)
Melting point/range	: No data available
Boiling point/boiling range	: No data available
Flash point	: > 95 °C Method: Directive 67/548/EEC, Annex V, A.9.
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable
Self-ignition	: > 400 °C Method: EEC A.15
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available
Relative vapor density	: No data available
Relative density	: No data available
Density	: No data available
Solubility(ies) Water solubility	: No data available

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Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	16,43 - 186,7 mPa.s (25 °C) Method: OECD Test Guideline 114
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	Non-oxidizing
Surface tension	:	39,2 mN/m, 22 °C
Molecular weight	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed. Decomposes on heating. No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed.
Conditions to avoid	:	Avoid extreme temperatures. Heat, flames and sparks. Exposure to sunlight. Avoid formation of aerosol. No data available
Incompatible materials	:	Avoid strong acids, bases, and oxidizers. Not applicable
Hazardous decomposition products	:	phosphorus oxides Carbon oxides Sulfur oxides No hazardous decomposition products are known.

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Harmful if swallowed, in contact with skin or if inhaled.

Product:

- | | | |
|---------------------------|---|--|
| Acute oral toxicity | : | LD50 (Rat, male and female): > 5.000 mg/kg
Method: US EPA Test Guideline OPP 81-1
Assessment: The substance or mixture has no acute oral toxicity

Assessment: The component/mixture is moderately toxic after single ingestion.
Remarks: Resolution no. 2075 |
| Acute inhalation toxicity | : | LC50 (Rat): > 7,74 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity

Assessment: The component/mixture is moderately toxic after short term inhalation.
Remarks: Resolution no. 2075 |
| Acute dermal toxicity | : | LD50 (Rat): > 5.000 mg/kg
Method: EPA OPP 81-2
Assessment: The substance or mixture has no acute dermal toxicity

Assessment: The component/mixture is moderately toxic after single contact with skin.
Remarks: Resolution no. 2075 |

Components:**malathion (ISO) [containing ≤ 0,03 % isomalathion]:**

- | | | |
|---------------------------|---|---|
| Acute oral toxicity | : | LD50 (Rat): 1.857 mg/kg
Method: OECD Test Guideline 401

LD50 (Rat, female): 1.608 - 2.550 mg/kg
Method: OECD Test Guideline 401
Symptoms: Tremors, hypoactivity
GLP: yes |
| Acute inhalation toxicity | : | LC50 (Rat): > 5,2 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: EPA OPP 81 - 3
GLP: yes
Remarks: no mortality |
| Acute dermal toxicity | : | LD50 (Rat): > 2.000 mg/kg |

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Method: US EPA Test Guideline OPP 81-2
GLP: yes
Assessment: The component/mixture is minimally toxic after single contact with skin.

LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The component/mixture is minimally toxic after single contact with skin.

Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

2-Propenoic acid, homopolymer:

Acute oral toxicity : LD50 (Rat, male and female): 617 - 1.405 mg/kg

Acute inhalation toxicity : LC0 (Rat, male and female): > 5,1 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Product:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-5
Result : No skin irritation

Components:

malathion (ISO) [containing ≤ 0,03 % isomalathion]:

Species : Rabbit
Method : US EPA Test Guideline OPP 81-5
Result : No skin irritation
GLP : yes

Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

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2-Propenoic acid, homopolymer:

Species	:	Rabbit
Exposure time	:	4 h
Method	:	OECD Test Guideline 404
Result	:	No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Product:

Species	:	Rabbit
Result	:	Eye irritation
Assessment	:	Irritating to eyes.
Method	:	US EPA Test Guideline OPP 81-4

Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

Species	:	Rabbit
Result	:	No eye irritation
Method	:	EPA OPP 81-4
GLP	:	yes

Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Species	:	Rabbit
Result	:	Eye irritation
Method	:	OECD Test Guideline 405

2-Propenoic acid, homopolymer:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Remarks	:	Based on data from similar materials

Respiratory or skin sensitization

Skin sensitization

Based on available data, the classification criteria are not met.

Respiratory sensitization

Not classified due to lack of data.

Product:

Test Type	:	Buehler Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	US EPA Test Guideline OPP 81-6
Result	:	Not a skin sensitizer.

Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

Routes of exposure	:	Dermal
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Species	:	Guinea pig
Method	:	US EPA Test Guideline OPP 81-6
Result	:	Does not cause skin sensitization.
Test Type	:	Local lymph node assay (LLNA)
Method	:	OECD Test Guideline 429
Result	:	Does not cause skin sensitization.
Test Type	:	Magnussen-Kligman test
Method	:	OECD Test Guideline 406
Result	:	May cause sensitization by skin contact.
Remarks	:	Based on data from similar materials

2-Propenoic acid, homopolymer:

Test Type	:	Split adjuvant test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	Not a skin sensitizer.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

Genotoxicity in vitro	:	Test Type: Ames test
	:	Result: negative
	:	Test Type: In vitro mammalian cell gene mutation test
	:	Result: positive
	:	Remarks: Based on data from similar materials
	:	Test Type: unscheduled DNA synthesis assay
	:	Result: negative
	:	Remarks: Based on data from similar materials
Genotoxicity in vivo	:	Test Type: chromosome aberration assay
	:	Species: Rat
	:	Result: negative
	:	Remarks: Based on data from similar materials
	:	Test Type: unscheduled DNA synthesis assay
	:	Species: Rat
	:	Result: negative
	:	Remarks: Based on data from similar materials

2-Propenoic acid, homopolymer:

Genotoxicity in vitro	:	Test Type: gene mutation test
	:	Test system: Chinese hamster ovary cells
	:	Method: OECD Test Guideline 476
	:	Result: negative
	:	Remarks: Based on data from similar materials

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Test Type: gene mutation test
Test system: mouse lymphoma cells
Result: positive
Remarks: Based on data from similar materials

Test Type: reverse mutation assay
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Method: OECD Test Guideline 473
Result: positive
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Bone marrow chromosome aberration.
Species: Rat (male and female)
Application Route: Oral
Method: OECD Test Guideline 475
Result: negative
Remarks: Based on data from similar materials

Test Type: Rodent Dominant Lethal Assay
Species: Mouse (male and female)
Application Route: Oral
Result: negative
Remarks: Based on data from similar materials

Carcinogenicity

Not classified due to lack of data.

Components:

malathion (ISO) [containing ≤ 0,03 % isomalathion]:

Species : Rat
Application Route : Ingestion
Exposure time : 24 month(s)
NOAEL : 6.000 ppm
Result : positive

Remarks : Probably carcinogenic to humans (IARC 2A)

Reproductive toxicity

Not classified due to lack of data.

Components:

malathion (ISO) [containing ≤ 0,03 % isomalathion]:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
General Toxicity F1: NOAEL: 132 - 152 mg/kg bw/day
Symptoms: Reduced offspring weight gain.

Effects on fetal development : Test Type: Embryo-fetal development

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Species: Rat
General Toxicity Maternal: NOAEL: 400 mg/kg bw/day
Teratogenicity: NOAEL: 800 mg/kg bw/day
Result: No teratogenic effects.

Test Type: Embryo-fetal development
Species: Rabbit
General Toxicity Maternal: NOAEL: 25 mg/kg bw/day
Teratogenicity: NOAEL: 25 mg/kg bw/day
Result: No teratogenic effects.

2-Propenoic acid, homopolymer:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 0, 53, 240, 460 mg/kg bw/day
General Toxicity Parent: NOAEL: 240 mg/kg body weight
General Toxicity F1: NOAEL: 53 mg/kg body weight
General Toxicity F2: NOAEL: 53 mg/kg body weight
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 0, 53, 240, 460 mg/kg bw/day
General Toxicity Parent: LOAEL: 460 mg/kg body weight
General Toxicity F1: LOAEL: 240 mg/kg body weight
General Toxicity F2: LOAEL: 240 mg/kg body weight
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Species: Rat
Application Route: inhalation (vapor)
Dose: 0.117, 0.353, 1.06 milligram per liter
Duration of Single Treatment: 14 d
General Toxicity Maternal: NOAEC: 0,12 mg/L
Teratogenicity: NOAEC F1: > 1,08 mg/L
Embryo-fetal toxicity.: NOAEC F1: > 1,08 mg/L
Method: OECD Test Guideline 414
Remarks: Based on data from similar materials

Species: Rat
Application Route: inhalation (vapor)
Dose: 0.117, 0.353, 1.06 milligram per liter
Duration of Single Treatment: 14 d
General Toxicity Maternal: LOAEC: 0,36 mg/L
Method: OECD Test Guideline 414
Remarks: Based on data from similar materials

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

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STOT-single exposure

Not classified due to lack of data.

Components:**2-Propenoic acid, homopolymer:**

Assessment : May cause respiratory irritation.

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Components:**malathion (ISO) [containing $\leq 0,03$ % isomalathion]:**

Assessment : May cause damage to organs through prolonged or repeated exposure.

2-Propenoic acid, homopolymer:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity**Components:****malathion (ISO) [containing $\leq 0,03$ % isomalathion]:**

Species	: Rat
LOAEL	: 34,4 mg/kg
Application Route	: Oral - feed
Exposure time	: 90 d
Target Organs	: Nervous system
Symptoms	: cholinesterase inhibition

2-Propenoic acid, homopolymer:

Species	: Rat, male
NOAEL	: 40 mg/kg
LOAEL	: 100 mg/kg
Application Route	: Oral
Exposure time	: 12 months
Dose	: 6, 40, 100, 200 mg/kg bw/day
Method	: OECD Test Guideline 452
Remarks	: Based on data from similar materials

Species	: Rat, female
NOAEL	: 375 mg/kg
Application Route	: Oral
Exposure time	: 12 months
Dose	: 10, 66, 150, 375 mg/kg bw/day
Method	: OECD Test Guideline 452
Remarks	: Based on data from similar materials

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Aspiration toxicity

Not classified due to lack of data.

Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

The substance does not have properties associated with aspiration hazard potential.

Further information

Product:

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0,18 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,72 µg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	IC50 (Selenastrum capricornutum (green algae)): 4,06 mg/l Exposure time: 72 h
M-Factor (Acute aquatic toxicity)	:	1.000
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 0,021 mg/l Exposure time: 37 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0,00006 mg/l Exposure time: 21 d
M-Factor (Chronic aquatic toxicity)	:	1.000
Toxicity to soil dwelling organisms	:	(Eisenia fetida (earthworms)): 613 mg/kg Exposure time: 14 d
		Remarks: No significant adverse effect on Nitrogen mineralization. No significant adverse effect on Carbon mineralization.
Toxicity to terrestrial organisms	:	LD50 (Colinus virginianus (Bobwhite quail)): 359 mg/kg Exposure time: 5 d
		LC50 (Colinus virginianus (Bobwhite quail)): 3.497 mg/kg Exposure time: 5 d

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Remarks: Dietary

LD50 (Anas platyrhynchos (Mallard duck)): > 2.250 mg/kg

LD50 (Apis mellifera (bees)): 0.38 µg/bee
End point: Acute oral toxicity

Ecotoxicology Assessment

Toxicity Data on Soil : Harmful to the soil environment.

Other organisms relevant to the environment : Harmful to terrestrial vertebrates., Harmful to terrestrial invertebrates.

Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 100 - 500 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

2-Propenoic acid, homopolymer:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 27 mg/l
Exposure time: 96 h
Test Type: semi-static test
Remarks: Based on data from similar materials

LC50 (Oryzias latipes (Orange-red killifish)): 62 mg/l
Exposure time: 96 h
Test Type: semi-static test
Remarks: Based on data from similar materials

LC50 (Cyprinodon variegatus (sheepshead minnow)): 236 mg/l
Exposure time: 96 h
Test Type: semi-static test
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 47 mg/l
Exposure time: 48 h
Test Type: semi-static test

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 0,75 mg/l
Exposure time: 72 h

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Test Type: Growth inhibition

NOEC (*Pseudokirchneriella subcapitata* (green algae)): 0,03 mg/l

Exposure time: 72 h

Test Type: Growth inhibition

EC50 (*Skeletonema costatum* (marine diatom)): 105 mg/l

Exposure time: 72 h

Test Type: static test

Method: ISO 10253

NOEC (*Skeletonema costatum* (marine diatom)): 36 mg/l

Exposure time: 72 h

Test Type: static test

Method: ISO 10253

EC50 (*Desmodesmus subspicatus* (green algae)): 0,13 - 0,205 mg/l

Exposure time: 72 h

Method: EU Method C3

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : NOEC (*Pseudomonas putida*): 41 mg/l
Exposure time: 16 h
Test Type: Cell multiplication inhibition test

Persistence and degradability

Components:

malathion (ISO) [containing ≤ 0,03 % isomalathion]:

Biodegradability : Result: Not readily biodegradable.

Poly(oxy-1,2-ethanediyl), .alpha.-phosphono-.omega.-[2,4,6-tris(1-phenylethyl)phenoxy]-:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 30 - 40 %
Method: OECD Test Guideline 302B

2-Propenoic acid, homopolymer:

Biodegradability : aerobic
Inoculum: activated sludge, non-adapted
Result: Readily biodegradable.
Exposure time: 28 d
Method: OECD Test Guideline 301F

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

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Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 95
Remarks: Bioaccumulation is unlikely.
See section 9 for octanol-water partition coefficient.

Partition coefficient: n-octanol/water : log Pow: 2,75

2-Propenoic acid, homopolymer:

Partition coefficient: n-octanol/water : log Pow: 0,27 (20 °C)
pH: 3,59 - 3,63
Remarks: Based on data from similar materials

log Pow: 0,23 (20 °C)
pH: 3,59 - 3,63
Remarks: Based on data from similar materials

Mobility in soil

Components:

malathion (ISO) [containing $\leq 0,03$ % isomalathion]:

Distribution among environmental compartments : Remarks: medium mobility in soil

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : It is prohibited to reuse, bury, burn, or sell containers. Rinsable containers: Triple rinse containers of less than 20 liters and pressure rinse containers of 20 liters or more. Triple rinsing: Add water up to $\frac{1}{4}$ of the container's capacity, close and shake for 30 seconds. Pour the rinse water into the mixing tank, considering this volume of water within the recommended volume for mixing preparation. Perform this procedure three times. Pressure rinsing: Activate the pressure rinsing

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device for 30 seconds, considering the volume of water used as part of the recommended volume for mixing preparation. In both procedures, punctured the container on its base without damaging the label. In all cases, take the empty containers to collection points indicated by the local empty containers program.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Malathion)

Class	: 9
Packing group	: III
Labels	: 9
Environmentally hazardous	: yes

IATA-DGR

UN/ID No.	: UN 3082
Proper shipping name	: Environmentally hazardous substance, liquid, n.o.s. (Malathion)

Class	: 9
Packing group	: III
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 964
Packing instruction (passenger aircraft)	: 964
Environmentally hazardous	: yes

IMDG-Code

UN number	: UN 3082
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Malathion)

Class	: 9
Packing group	: III
Labels	: 9
EmS Code	: F-A, S-F
Marine pollutant	: yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data

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Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

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

Substances and chemicals controlled by the Ministry of Justice : ethyl acetate

List of substances included for special control and subject to supervision by the Ministry of Health and Social Protection : Not applicable

Resolution 2715/2014, which establishes the substances subject to registration of retail sales, based on defined classification criteria. : Not applicable

The ingredients of this product are reported in the following inventories:

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: Product contains substance(s) not listed on TSCA inventory.
AIIC	: Not in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: Not in compliance with the inventory
ISHL	: Not in compliance with the inventory
KECI	: Not in compliance with the inventory
PICCS	: Not in compliance with the inventory
IECSC	: Not in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: Not in compliance with the inventory

SECTION 16. OTHER INFORMATION

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Further information

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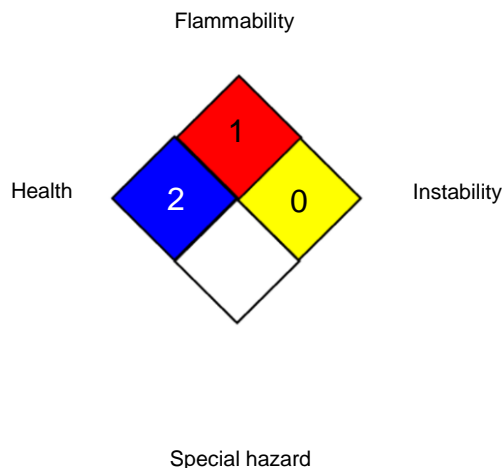
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NFPA:



HMIS® IV:

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recom-

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recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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