

|   |                            |                         |
|---|----------------------------|-------------------------|
| Material group  | 3110                       | Page 1 of 14            |
| Product name  | <b>AQUAFIN® 440 g/l EW</b> | April 2019              |
| Safety data sheet according to EU Reg. 1907/2006 as amended |                            | Supersedes January 2016 |

## SAFETY DATA SHEET

### AQUAFIN® 440 g/l EW


Revision: Sections containing a revision or new information are marked with a ♣.

#### ♣ SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1. **Product identifier** ..... **AQUAFIN® 440 g/l EW**
- Other trade names ..... **SMART EW, FYFANON**
- 1.2. **Relevant identified uses of the substance or mixture and uses advised against** ..... Can be used as insecticide only.
- 1.3. **Details of the supplier of the safety data sheet** **CHEMINOVA A/S**, a subsidiary of FMC Corporation  
 Thyborønvej 78  
 DK-7673 Harbøre  
 Denmark  
[SDS.Ronland@fmc.com](mailto:SDS.Ronland@fmc.com)
- 1.4. **Emergency telephone number**  
Company ..... +45 97 83 53 53 (24 h; for emergencies only)
- Medical emergencies:
- |                                     |   |
|-------------------------------------|---|
| Austria: +43 1 406 43 43            | Luxembourg: +352 8002 5500                                      |
| Belgium: +32 70 245 245             | Netherlands: +31 30 274 88 88                                   |
| Bulgaria: +359 2 9154 409           | Norway: +47 22 591300   |
| Cyprus: 1401                        | Poland: +48 22 619 66 54  |
| Czech Republic: +420 224 919 293    | +48 22 619 08 97  |
| +420 224 915 402                    | Portugal: 808 250 143 (in Portugal only)                        |
| Denmark: +45 82 12 12 12            | +351 21 330 3284  |
| England and Wales: 111              | Romania: +40 21318 3606   |
| Estonia: +372 7943500               | Scotland: +8454 24 24 24  |
| France: +33 (0) 1 45 42 59 59       | Slovakia: +421 2 54 77 4 166                                    |
| Finland: +358 9 471 977             | Slovenia: +386 41 650 500                                       |
| Greece: 30 210 77 93 777            | South Africa: +27 83 123 3911 (Bateleur Emergency Response Co.) |
| Hungary: +36 80 20 11 99            | Spain: +34 91 562 04 20   |
| Ireland (Republic): +353 1 837 9964 | Sweden: +46 08-331231   |
| Italy: +39 02 6610 1029             | 112   |
| Latvia: +371 670 42 473             | Switzerland: 145  |
| 112                                 | Turkey: 114   |
| Lithuania: +370 523 62052           | U.S.A. & Canada: +1 800 / 331 3148                              |
| +370 687 53378                      | All other countries: +1 651 / 632 6793 (Collect)                |

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## SECTION 2: HAZARDS IDENTIFICATION

- 2.1. **Classification of the substance or mixture**
- Hazards to the aquatic environment, acute: Category 1 (H400)  
 chronic: Category 1 (H410)
- WHO classification ..... Class U (unlikely to present acute hazard in normal use)
- Health hazards ..... The active ingredient **malathion** is a cholinesterase inhibitor of low mammalian toxicity. However, prolonged storage or storage at too high temperatures may induce formation of the much more toxic and synergistic contaminant isomalathion (LD<sub>50</sub>, oral, rat, 89 mg/kg). Both malathion and isomalathion rapidly enter the body on contact with all skin surfaces and eyes.
- Repeated exposures to cholinesterase inhibitors such as malathion or isomalathion may, without warning, cause increased susceptibility to doses of any cholinesterase inhibitor.
- Environmental hazards ..... The product is very toxic to aquatic organisms.
- 2.2. **Label elements**  
*According to EU Reg. 1272/2008 as amended*
- Product identifier ..... AQUAFIN® 440 g/l EW
- Hazard pictogram (GHS09) .....
- 
- Signal word ..... Warning
- Hazard statement  
 H410 ..... Very toxic to aquatic life with long lasting effects.
- Supplementary hazard statements  
 EUH208 ..... Contains malathion. May produce an allergic reaction.  
 EUH401 ..... To avoid risks to human health and the environment, comply with the instructions of use.
- Precautionary statements  
 P273 ..... Avoid release to the environment.  
 P391 ..... Collect spillage.  
 P501 ..... Dispose of contents/container as hazardous waste.
- 2.3. **Other hazards** ..... None of the ingredients in the product meets the criteria for being PBT or vPvB.

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

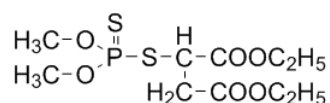
3.1. **Substances** ..... The product is a mixture, not a substance.

3.2. **Mixtures** ..... See section 16 for full text of hazard statements.

#### Active ingredient

**Malathion** ..... Content: 40% by weight  
 CAS name ..... Butanedioic acid, [(dimethoxyphosphinothioyl)thio]-, diethyl ester  
 CAS no. .... 121-75-5  
 IUPAC name(s) ..... Diethyl (dimethoxythiophosphorylthio)succinate  
 S-[1,2-bis(Ethoxycarbonyl)ethyl] O,O-dimethyl phosphorodithioate  
 ISO name/EU name ..... Malathion  
 EC no. (EINECS no.) ..... 204-497-7  
 EU index no. .... 015-041-00-X  
 Classification of the ingredient ..... Acute oral toxicity: Category 4 (H302)  
 Sensitisation – skin: Category 1B (H317)  
 Hazards to the aquatic environment, acute: Category 1 (H400)  
 chronic: Category 1 (H410)

Structural formula .....



#### Reportable ingredient

|  | Content<br>(% w/w) | CAS no.     | EC no.<br>(EINECS no.) | Classification      |
|--|--------------------|-------------|------------------------|---------------------|
| Tristyryl phenol-polyethylene glycol-phosphoric acid | 4                  | 114535-82-9 | None                   | Eye Irrit. 2 (H319) |

### SECTION 4: FIRST AID MEASURES

#### 4.1. **Description of first aid measures**

**Inhalation** ..... If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.

**Skin contact** ..... Immediately remove contaminated clothing and footwear. Flush skin with much water. Wash with water and soap. See physician if any symptom develops.

**Eye contact** ..... Immediately rinse eyes with much water or eyewash solution, occasionally opening eyelids, until no evidence of chemical remains. Remove contact lenses after a few minutes and rinse again. See physician if irritation persists.

**Ingestion** ..... Inducing vomiting is not recommended. Rinse mouth and drink water or milk. If vomiting does occur, rinse mouth and drink fluids again. Get medical attention immediately.

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- 4.2. **Most important symptoms and effects, both acute and delayed** On exposure to larger quantities of aged product, symptoms of poisoning (cholinesterase inhibition) may occur.
- 4.3. **Indication of any immediate medical attention and special treatment needed** Immediate medical attention is required in case of ingestion.  
 It may be helpful to show this safety data sheet to physician.
- Notes to physician ..... **Malathion** is a cholinesterase inhibitor affecting the central and peripheral nervous systems producing respiratory depression.
- Cholinesterase inhibition – treatment Decontamination procedures such as whole body washing, gastric lavage and administration of activated charcoal are often required.
- Antidote:** If symptoms of cholinesterase inhibition (see section 11) are present, administer atropine sulphate, which often is a lifesaving antidote, in large doses, TWO to FOUR mg intravenously or intramuscularly as soon as possible. Repeat at 5 to 10 minute intervals until signs of atropinisation appear and maintain full atropinisation until all organophosphate is metabolised.
- Obidoxime chloride (Toxogonin), alternatively pralidoxime chloride (2-PAM), may be administered as an adjunct to, but not a substitute for atropine sulphate. Treatment with oxime should be maintained as long as atropine sulphate is administered.
- At first sign of pulmonary oedema the patient should be given supplementary oxygen and treated symptomatically.
- Relapse can occur after initial improvement.  
 VERY CLOSE SUPERVISION OF THE PATIENT IS INDICATED FOR AT LEAST 48 HOURS, DEPENDING ON THE SEVERITY OF POISONING.
- Much information on (acetyl)cholinesterase inhibition and its treatment can be found on the internet.

#### ♣ SECTION 5: FIRE-FIGHTING MEASURES

- 5.1. **Extinguishing media** ..... Dry chemical or carbon dioxide for small fires, water spray or foam for large fires. Avoid heavy hose streams.
- 5.2. **Special hazards arising from the substance or mixture** The essential breakdown products are volatile, toxic, malodorous, irritant and inflammable compounds such as hydrogen sulphide, dimethyl sulphide, methyl mercaptan, sulphur dioxide, carbon monoxide, carbon dioxide and phosphorus pentoxide.
- 5.3. **Advice for firefighters** ..... Use water spray to keep fire-exposed containers cool. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Fight fire from protected location or maximum possible distance. Dike area to prevent water runoff. Firemen should wear self-

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contained breathing apparatus and protective clothing.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 10 tonnes of the product or more):

1. use personal protection equipment; see section 8
2. call emergency telephone no.; see section 1
3. alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots.

Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area. Avoid and reduce mist formation as much as possible.

### 6.2. Environmental precautions .....

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

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

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping. See GHS (Annex 4, Section 6).

Surface water drains should be covered if appropriate. Minor spills on the floor or other impervious surface should be absorbed onto an absorptive material such as universal binder, hydrated lime, Fuller's earth or other absorbent clays. Collect the contaminated absorbent in suitable containers. Clean area with soda lye and much water. Absorb wash liquid with absorbent and transfer to suitable containers. The used containers should be properly closed and labelled.

Large spills which soak into the ground should be dug up and transferred to suitable containers.

Spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

### 6.4. Reference to other sections .....

See subsection 8.2. for personal protection.  
 See section 13 for disposal.

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## ♣ SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling ....

In an industrial environment it is recommended to avoid all personal contact with the product, if possible by using closed systems with remote system control. The material should be handled by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

For its use as a pesticide, first look for precautions and personal protection measures on the officially approved label on the packaging or for other official guidance or policy in force. If these are lacking, see section 8.

Remove contaminated clothing immediately. Wash thoroughly after handling. Before removing gloves, wash them with water and soap. After work, take off all work clothes and shoes. Take a shower, using water and soap. Wear only clean clothes when leaving job. Wash protective clothing and protective equipment with water and soap after use.

Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

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

The product is stable when stored at temperatures not exceeding 25°C.

The product should never be heated above 55°C. Local heating above this temperature should be avoided as well.

Keep in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading "POISON" is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

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

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

## ♣ SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Personal exposure limits

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|                  |                              |      |  |
|------------------|------------------------------|------|--|
| <b>Malathion</b> | ACGIH (USA) TLV              | Year |  |
|                  |                              | 2015 | TWA 1 mg/m <sup>3</sup> ; measured as inhalable fraction and vapor<br>Skin notation; BEI                         |
|                  | OSHA (USA) PEL               | 2015 | TWA 15 mg/m <sup>3</sup> total dust; skin notation   |
|                  | EU, 2000/39/EC<br>as amended | 2017 | Not established  |
|                  | Germany, MAK                 | 2014 | TWA 15 mg/m <sup>3</sup> measured as inhalable fraction of the aerosol<br>Peak level 60 mg/m <sup>3</sup><br>BAT |
|                  | HSE (UK) WEL                 | 2011 | 8-hr TWA 10 mg/m <sup>3</sup> ; skin notation  |

However, other personal exposure limits defined by local regulations may exist and must be observed.

Monitoring methods ..... Persons working with this product for a longer period should have frequent blood tests of their cholinesterase levels. If the cholinesterase level falls below a critical point, no further exposure should be allowed until it has been determined by means of blood tests that the cholinesterase level has returned to normal.

**Malathion**  
 DNEL, systemic ..... Not established  
 EFSA has established an AOEL of 0.03 mg/kg bw/day  
 PNEC, aquatic ..... 1.2 ng/l

8.2. **Exposure controls** ..... When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.



Respiratory protection

The product does not automatically present an airborne exposure concern during normal handling, but in the event of an accidental discharge of the material which produces a heavy vapour or mist, workers must put on officially approved respiratory protection equipment with a universal filter type including particle filter.



Protective gloves .....

Wear chemical resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton. The breakthrough times of these materials for the product are unknown, but it is expected that they will give adequate protection if the manual work with the product is kept limited.



Eye protection .....

Wear safety glasses. It is recommended to have an eye wash fountain immediately available in the workplace when there is a potential for eye contact.

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#### Other skin protection

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of excessive or prolonged exposure, coveralls of barrier laminate may be required.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on physical and chemical properties

|  |   |
|--|---|
| Appearance .....                                   | Off-white liquid  |
| Odour .....  | Glue-like   |
| Odour threshold .....                              | Not determined  |
| pH .....   | 4.22 at 20°C for a freshly prepared sample in a 1% suspension.<br>The pH is expected to decrease on prolonged storage.                                  |
| Melting point/freezing point .....                 | Below 0°C   |
| Initial boiling point and boiling range            | Not determined  |
| Flash point .....                                  | None. The flame is extinguished at 80°C in the Pensky-Martens closed cup tester.  |
| Evaporation rate .....                             | Not determined  |
| Flammability (solid/gas) .....                     | Not applicable (liquid)   |
| Upper/lower flammability or explosive limits ..... | Not determined  |
| Vapour pressure .....                              | <b>Malathion:</b> $4.5 \times 10^{-4}$ Pa at 25°C<br>$1.9 \times 10^{-2}$ Pa at 45°C  |
| Vapour density .....                               | Not determined  |
| Relative density .....                             | Not determined  |
| Solubility(ies) .....                              | Density: 1.100 g/ml at 20°C<br>Solubility of <b>malathion</b> at 20°C in:<br>ethyl acetate > 250 g/l<br>heptane 57 - 67 g/l<br>water 148.2 mg/l at 25°C |
| Partition coefficient n-octanol/water              | <b>Malathion:</b> $\log K_{ow} = 2.75$  |
| Autoignition temperature .....                     | > 400°C   |
| Decomposition temperature .....                    | Not determined  |
| Viscosity .....                                    | 16.4 - 187 mN/m depending on shear rate   |
| Explosive properties .....                         | Not explosive   |
| Oxidising properties .....                         | Not oxidising   |

### 9.2. Other information

|                   |                                     |
|-------------------|-------------------------------------|
| Miscibility ..... | The product is miscible with water. |
|-------------------|-------------------------------------|

## SECTION 10: STABILITY AND REACTIVITY

|                                |   |
|--------------------------------|---|
| 10.1. Reactivity .....         | To our knowledge, the product has no special reactivities.          |
| 10.2. Chemical stability ..... | <b>Malathion</b> will decompose rapidly when heated to temperatures |

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above 100°C, significantly increasing the risk of explosion. Direct local heating such as electric heating or by steam must be avoided.

The decomposition is dependent on time as well as temperature due to self-accelerating exothermic and autocatalytic reactions. The reactions involve rearrangements and polymerisation releasing volatile malodorous and inflammable compounds such as dimethyl sulphide and methyl mercaptan.

- 10.3. **Possibility of hazardous reactions** None known.
- 10.4. **Conditions to avoid** ..... Heating of the product will produce harmful and irritant vapours.
- 10.5. **Incompatible materials** ..... Strong alkalis, amines and strong oxidising compounds. The product can corrode metals (but does not meet the criteria for classification).
- 10.6. **Hazardous decomposition products** See subsection 5.2.

## SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. **Information on toxicological effects** \* = Based on available data, the classification criteria are not met.

### Product

- Acute toxicity ..... The product is not considered as harmful by inhalation, in contact with skin or if swallowed. \* However, it may become harmful after prolonged storage or storage at too high temperatures, see subsection 2.1. The acute toxicity of the product is measured as:
- Route(s) of entry     - ingestion     LD<sub>50</sub>, oral, rat: > 5000 mg/kg (method FIFRA 81-1)
- skin             LD<sub>50</sub>, dermal, rat: > 5000 mg/kg (method FIFRA 81-2)
- inhalation     LC<sub>50</sub>, inhalation, rat: > 7.74 mg/l/4 h (method OECD 403)
- Skin corrosion/irritation ..... Not irritating to skin (method FIFRA 81-5). \*
- Serious eye damage/irritation ..... Minimally irritating to eyes (method OECD 405). \*
- Respiratory or skin sensitisation ... Not sensitising (method FIFRA 81-6). \*
- Germ cell mutagenicity ..... The product contains no ingredients known to be mutagenic. \*
- Carcinogenicity ..... The product contains no ingredients known to be carcinogenic. \*
- Reproductive toxicity ..... The product contains no ingredients known to have adverse effects on reproduction. \*
- STOT – single exposure ..... To our knowledge, no specific effects have been observed after single exposure. \*
- STOT – repeated exposure ..... The following has been measured on the active ingredient malathion:

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Target organ: nervous system

LOAEL: 500 ppm (34.4 mg/kg bw/day) in a 90-day rat study. At this exposure level, minor cholinesterase inhibition was found which generally does not result in observable effects or discomfort. \*

|  |   |
|--|---|
| Aspiration hazard .....  | The product does not present an aspiration pneumonia hazard.  |
| Symptoms and effects, acute and delayed                                | On exposure to larger quantities of aged product symptoms of poisoning (cholinesterase inhibition) may occur. Symptoms of cholinesterase inhibition: nausea, headache, vomiting, cramps, weakness, blurred vision, pin-point pupils, tightness in chest, laboured breathing, nervousness, sweating, watering of eyes, drooling or frothing of mouth and nose, muscle spasms and coma. |
| <u><b>Malathion</b></u><br>Toxicokinetics, metabolism and distribution | Malathion is rapidly absorbed and excreted. The highest concentration was found in the liver, followed by skin, fat, bone and gastrointestinal tract. It is extensively metabolised. There is no evidence of accumulation.  |
| Acute toxicity .....   | Malathion is not considered as harmful. * However, it may become harmful after storage at too high temperatures, see section 2.1.   |
| Route(s) of entry  | - ingestion LD <sub>50</sub> , oral, rat: approx. 5500 mg/kg (method FIFRA 81.01)<br>- skin LD <sub>50</sub> , dermal, rabbit: > 2000 mg/kg (method FIFRA 81.02)<br>- inhalation LC <sub>50</sub> , inhalation, rat: > 5.02 mg/l/4 h (method FIFRA 81.03)   |
| Skin corrosion/irritation  | Slightly irritating to skin (method FIFRA 81.05). *   |
| Serious eye damage/irritation .....                                    | Slightly irritating to eyes (method FIFRA 81.04). *   |
| Respiratory or skin sensitisation ...                                  | Buehler test: negative (method FIFRA 81.06)<br>Local Lymph Node Assay: negative (method OECD 429)<br>To our knowledge, no cases of allergic reactions in humans have been reported.   |

**Tristyryl phenol-polyethylene glycol-phosphoric acid**

|                                 |  |
|---------------------------------|--|
| Acute toxicity .....            | The substance is not considered as harmful by inhalation, ingestion or skin contact. * The acute toxicity is measured as:  |
| Route(s) of entry               | - ingestion LD <sub>50</sub> , oral, rat: > 2000 mg/kg (method OECD 401)<br>- skin LD <sub>50</sub> , dermal, rat: not determined<br>- inhalation LC <sub>50</sub> , inhalation, rat: not determined |
| Skin corrosion/irritation ..... | Not irritating to skin (method OECD 404). *  |

**SECTION 12: ECOLOGICAL INFORMATION**

|                             |   |
|-----------------------------|---|
| 12.1. <b>Toxicity</b> ..... | <b>Malathion</b> is highly toxic to fish, aquatic invertebrates, aquatic life |
|-----------------------------|---|

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stages of amphibians and insects. It is less toxic to aquatic plants, birds, mammals, soil micro- and macroorganisms.

The ecotoxicity is measured on the product as:

|                 |   |  |
|-----------------|---|--|
| - Fish          | Rainbow trout ( <i>Salmo gairdneri</i> ) .....      | 96-h LC <sub>50</sub> : 0.74 mg/l            |
| - Invertebrates | Daphnids ( <i>Daphnia magna</i> ) .....             | 48-h LC <sub>50</sub> : 1.8 µg/l             |
| - Earthworms    | <i>Eisenia foetida foetida</i> .....                | 14-day LC <sub>50</sub> : 285 mg/kg dry soil |
| - Birds         | Bobwhite quail ( <i>Colinus virginianus</i> ) ..... | LD <sub>50</sub> : 528 mg/kg                 |

#### 12.2. Persistence and degradability ....

**Malathion** is biodegradable, but does not meet the criteria for being readily biodegradable. It undergoes rapid degradation in the environment and in waste water treatment plants. No adverse effects are found at concentrations up to 100 mg/l in waste water treatment plants. Degradation occurs both aerobically and anaerobically, mostly biologically.

Primary degradation half-lives vary with circumstances, but are usually one to a few days in aerobic soil and water.

The product contains minor amounts of not readily biodegradable components, which may not be degradable in waste water treatment plants.

#### 12.3. Bioaccumulative potential .....

See section 9 for n-octanol/water partition coefficient.

**Malathion** is not expected to bioaccumulate. It is rapidly metabolised and excreted (with half-life of approx. 3 days). The measured bioconcentration factor (BCF) of malathion is 95 (average for several fish species).

#### 12.4. Mobility in soil .....

Under normal conditions **malathion** is of medium mobility in soil but is degraded rapidly.

#### 12.5. Results of PBT and vPvB assessment .....

None of the ingredients meets the criteria for being PBT or vPvB.

#### 12.6. Other adverse effects .....

Other relevant hazardous effects in the environment are not known.

### ♣ SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods .....

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste.

Disposal of waste and packagings must always be in accordance with all applicable local regulations.

#### Disposal of product .....

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this

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is not possible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Disposal of packaging .....

It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

#### ♣ SECTION 14: TRANSPORT INFORMATION

##### ADR/RID/IMDG/IATA/ICAO classification

- |  |   |
|--|---|
| 14.1. UN number .....  | 3082  |
| 14.2. UN proper shipping name .....  | Environmentally hazardous substance, liquid, n.o.s. (malathion)   |
| 14.3. Transport hazard class(es) .....   | 9   |
| 14.4. Packing group .....  | III   |
| 14.5. Environmental hazards .....  | Marine pollutant  |
| 14.6. Special precautions for user .....                                       | Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment. |
| 14.7. Transport in bulk according to Annex II of MARPOL and the IBC code ..... | The product is not transported in bulk by ship.   |

#### SECTION 15: REGULATORY INFORMATION

- |  |  |
|--|--|
| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | Seveso category (Dir. 2012/18/EU): dangerous for the environment.<br><br>All ingredients are covered by EU chemical legislation. |
|--|--|

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15.2. **Chemical safety assessment** ..... A chemical safety assessment is not required to be included for this product.

#### ♣ **SECTION 16: OTHER INFORMATION**

Relevant changes in the safety data sheet .....

Minor corrections only.

List of abbreviations .....

|                  |  |
|------------------|--|
| ACGIH            | American Conference of Governmental Industrial Hygienists  |
| AOEL             | Acceptable Operator Exposure Level   |
| BAT              | Biologischer Arbeitsstoff-Toleranzwert   |
| BEI              | Biological Exposure Index  |
| CAS              | Chemical Abstracts Service   |
| Dir.             | Directive  |
| DNEL             | Derived No Effect Level  |
| EC               | European Community   |
| EC <sub>50</sub> | 50% Effect Concentration   |
| EFSA             | European Food Safety Authority   |
| EINECS           | European INventory of Existing Commercial Chemical Substances                                    |
| EW               | Emulsion, oil in Water   |
| FIFRA            | Federal Insecticide, Fungicide and Rodenticide Act   |
| GHS              | Globally Harmonized classification and labelling System of chemicals, Fifth revised edition 2013 |
| HSE              | Health and Safety Executive  |
| IBC              | International Bulk Chemical code   |
| ISO              | International Organisation for Standardization   |
| IUPAC            | International Union of Pure and Applied Chemistry  |
| LC <sub>50</sub> | 50% Lethal Concentration   |
| LD <sub>50</sub> | 50% Lethal Dose  |
| LOAEL            | Lowest Observed Adverse Effect Level   |
| MAK              | Maximale Arbeitsplatz-Konzentration  |
| MARPOL           | Set of rules from the International Maritime Organisation (IMO) for prevention of sea pollution  |
| n.o.s.           | Not otherwise specified  |
| OECD             | Organisation for Economic Cooperation and Development  |
| OSHA             | Occupational Safety and Health Administration  |
| PBT              | Persistent, Bioaccumulative, Toxic   |
| PEL              | Permissible Exposure Limit   |
| PNEC             | Predicted No Effect Concentration  |
| Reg.             | Regulation   |
| STOT             | Specific Target Organ Toxicity   |
| TLV              | Threshold Limit Value  |
| TWA              | Time Weighted Average  |
| vPvB             | very Persistent, very Bioaccumulative  |
| WEL              | Workplace Exposure Limit   |
| WHO              | World Health Organisation  |

References .....

Data measured on the product are unpublished company data. Data on

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ingredients are available from published literature and can be found several places.

|                                 |  |  |
|---------------------------------|--|--|
| Method for classification ..... | Hazards to the aquatic environment, acute: test data<br>chronic: calculation method  |  |
| Used hazard statements .....    | H302   | Harmful if swallowed.  |
|                                 | H317   | May cause an allergic skin reaction.   |
|                                 | H319   | Causes serious eye irritation.   |
|                                 | H400   | Very toxic to aquatic life.  |
|                                 | H410   | Very toxic to aquatic life with long lasting effects.                                    |
|                                 | EUH208   | Contains malathion. May produce an allergic reaction.                                    |
|                                 | EUH401   | To avoid risks to human health and the environment, comply with the instructions of use. |
| Advice on training .....        | This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions. |  |

The information provided in this safety data sheet is believed to be accurate and reliable, but uses of the product vary and situations unforeseen by FMC Corporation may exist. The user has to check the validity of the information under local circumstances.

Prepared by: FMC Corporation / Cheminova A/S / GHB