



AQUAPY

Version 10 / GB
102000011789

1/12
Revision Date: 07.10.2016
Print Date: 08.11.2016

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

1.1 Product identifier

Trade name AQUAPY
Product code (UVP) 06477402

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

Use Insecticide

1.3 Details of the supplier of the safety data sheet

Supplier Bayer Environmental Science
 230 Cambridge Science Park
 Milton Road
 Cambridge
 Cambridgeshire CB4 0WB
 United Kingdom

Telephone 00800-1214 9451

Telefax +44(0)1223 426240

Responsible Department Email: ukinfo@bayercropscience.com

1.4 Emergency telephone no.

Emergency telephone no. 0800-220876 (UK 24 hr)
 +44(0)1635-563000 (Overseas 24 hr)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Acute aquatic toxicity: Category 1
H400 Very toxic to aquatic life.

Chronic aquatic toxicity: Category 1
H410 Very toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling in accordance with Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, as amended.

Hazard label for supply/use required.

Hazardous components which must be listed on the label:

- Pyrethrins including cinerins
- Piperonyl butoxide

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- H410 Very toxic to aquatic life with long lasting effects.
 EUH208 Contains pyrethrins including cinerins, 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one. May produce an allergic reaction.
 EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

- P501 Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.

2.3 Other hazards

Cutaneous sensations may occur, such as burning or stinging on the face and mucosae. However, these sensations cause no lesions and are of a transitory nature (max. 24 hours).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Chemical nature**

Emulsion, oil in water (EW)
 Pyrethrin/Piperonyl butoxide 30:135 g/l

Hazardous components

Hazard statements according to Regulation (EC) No. 1272/2008

Name	CAS-No. / EC-No. / REACH Reg. No.	Classification	Conc. [%]
		REGULATION (EC) No 1272/2008	
Pyrethrins including cinerins	8003-34-7 232-319-8	Acute Tox. 4, H332 Acute Tox. 4, H312 Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	3.00
Piperonyl butoxide	51-03-6 200-076-7 01-2119537431-46-xxxx	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	13.50
Polyalkyleneoxide modified Heptamethyltrisiloxane	27306-78-1	Acute Tox. 4, H332 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	> 1.00 – < 25.00
Distillates (petroleum), hydrotreated light	64742-47-8 265-149-8 01-2119456620-43-xxxx	Asp. Tox. 1, H304	> 1.00 – < 10.00
2,6-Di-tert-butyl-4-	128-37-0	Aquatic Acute 1, H400	> 0.25 – <

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methylphenol	204-881-4 01-2119555270-46-xxxx	Aquatic Chronic 1, H410	2.50
reaction mass of 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	Acute Tox. 2, H330 Acute Tox. 2, H310 Acute Tox. 3, H301 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	> 0.0002 – < 0.0015
Cetyl alcohol	36653-82-4 253-149-0	Not classified	> 1

Further information

Pyrethrins including cinerins	8003-34-7	M-Factor: 100 (acute)
Piperonyl butoxide	51-03-6	M-Factor: 1 (acute)

Substances for which there are Community workplace exposure limits:
Pyrethrins including cinerins (8003-34-7)

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES**4.1 Description of first aid measures**

General advice	Move out of dangerous area. Place and transport victim in stable position (lying sideways). Remove contaminated clothing immediately and dispose of safely.
Inhalation	Move to fresh air. Keep patient warm and at rest. Call a physician or poison control center immediately.
Skin contact	Immediately wash with plenty of soap and water for at least 15 minutes. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. In case of skin irritation, application of oils or lotions containing vitamin E may be considered. If symptoms persist, call a physician.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Warm water may increase the subjective severity of the irritation/paresthesia. This is not a sign of systemic poisoning. Apply soothing eye drops, if needed anaesthetic eye drops. Get medical attention if irritation develops and persists.
Ingestion	Rinse out mouth and give water in small sips to drink. Do NOT induce vomiting. Do not leave victim unattended. Call a physician or poison control center immediately.

4.2 Most important symptoms and effects, both acute and delayed



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Symptoms	Local:, Skin and eye paraesthesia which may be severe, Usually transient with resolution within 24 hours, Skin, eye and mucous membrane irritation, Cough, Sneezing Systemic:, discomfort in the chest, Tachycardia, Hypotension, Nausea, Abdominal pain, Diarrhoea, Vomiting, Blurred vision, Headache, anorexia, Somnolence, Coma, Convulsions, Tremors, Prostration, Airway hyperreaction, Pulmonary oedema, Palpitation, Muscular fasciculation, Apathy, Dizziness
4.3 Indication of any immediate medical attention and special treatment needed	
Risks	This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
Treatment	Systemic treatment: Initial treatment: symptomatic. Monitor: respiratory and cardiac functions. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Keep respiratory tract clear. Oxygen or artificial respiration if needed. In case of convulsions, a benzodiazepine (e.g. diazepam) should be given according to standard regimens. If not effective, phenobarbital may be used. Contraindication: atropine. Contraindication: derivatives of adrenaline. There is no specific antidote. Recovery is spontaneous and without sequelae. In case of skin irritation, application of oils or lotions containing vitamin E may be considered.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Water spray, Carbon dioxide (CO₂), Foam, Sand

5.2 Special hazards arising from the substance or mixture Dangerous gases are evolved in the event of a fire.

5.3 Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. In the event of fire, wear self-contained breathing apparatus.

Further information Contain the spread of the fire-fighting media. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Precautions Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment.

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6.2 Environmental precautions

Do not allow to get into surface water, drains and ground water. If spillage enters drains leading to sewage works inform local water company immediately. If spillage enters rivers or watercourses, inform the Environment Agency (emergency telephone number 0800 807060).

6.3 Methods and materials for containment and cleaning up**Methods for cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal.

Additional advice

Check also for any local site procedures.

6.4 Reference to other sections

Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE**7.1 Precautions for safe handling****Advice on safe handling**

No specific precautions required when handling unopened packs/containers; follow relevant manual handling advice.

Advice on protection against fire and explosion

No special precautions required.

Hygiene measures

Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storage areas and containers**

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Store in a place accessible by authorized persons only. Keep away from direct sunlight. Protect from frost.

Suitable materials

HDPE (high density polyethylene)

7.3 Specific end use(s)

Refer to the label and/or leaflet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1 Control parameters**

Components	CAS-No.	Control parameters	Update	Basis
Pyrethrins including cinerins	8003-34-7	1 mg/m ³ (TWA)	12 2011	EH40 WEL
Pyrethrins including cinerins	8003-34-7	1 mg/m ³ (TWA)	12 2009	EU ELV
Pyrethrins including cinerins	8003-34-7	1 mg/m ³ (TWA)	2014	EU SCOELS

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Pyrethrins including cinerins	8003-34-7	5 mg/m ³ (TWAEV)		OES BCS*
Piperonyl butoxide	51-03-6	500 ppm (TWA)		OES BCS*
2,6-Di-tert-butyl-4-methylphenol	128-37-0	10 mg/m ³ (TWA)	12 2011	EH40 WEL
2,6-Di-tert-butyl-4-methylphenol	128-37-0	2 mg/m ³ (TLV)		OES BCS*

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

8.2 Exposure controls

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer also to COSHH Essentials.

Personal protective equipment

In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection

Respiratory protection is not required under anticipated circumstances of exposure.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand protection

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Material	Nitrile rubber
Rate of permeability	> 480 min
Glove thickness	> 0.4 mm
Directive	Protective gloves complying with EN 374.

Eye protection

Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

Skin and body protection

Wear standard coveralls and Category 3 Type 6 suit.

If there is a risk of significant exposure, consider a higher protective type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

If chemical protection suit is splashed, sprayed or significantly contaminated, decontaminate as far as possible, then carefully remove and dispose of as advised by manufacturer.

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Form	emulsion
Colour	white to light yellow
Odour	weak, characteristic
pH	≤ 6.0 at 100 % (23 °C)
Flash point	>79 °C
Density	ca. 1.00 g/cm ³ at 20 °C
Water solubility	miscible
Partition coefficient: n-octanol/water	Pyrethrin: log Pow: 4.3 - 5.9 Piperonyl butoxide: log Pow: 4.75
Viscosity, dynamic	≤ 100 mPa·s at 20 °C Velocity gradient 7.5 /s
Surface tension	25.8 mN/m at 25 °C
Oxidizing properties	No oxidizing properties
9.2 Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY**10.1 Reactivity****Thermal decomposition** Stable under normal conditions.**10.2 Chemical stability** Stable under recommended storage conditions.**10.3 Possibility of hazardous reactions** No hazardous reactions when stored and handled according to prescribed instructions.**10.4 Conditions to avoid** Extremes of temperature and direct sunlight.**10.5 Incompatible materials** Store only in the original container.**10.6 Hazardous decomposition products** No decomposition products expected under normal conditions of use.**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****Acute oral toxicity** LD50 (Rat) $> 5,000$ mg/kg**Acute inhalation toxicity** LC50 (Rat) > 1.64 mg/l
Exposure time: 4 h
Determined in the form of a respirable aerosol.
Highest attainable concentration.

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	No deaths
Acute dermal toxicity	LD50 (Rat) > 5,000 mg/kg
Skin irritation	No skin irritation (Rabbit)
Eye irritation	No eye irritation (Rabbit)
Sensitisation	Non-sensitizing. (Mouse) OECD Test Guideline 429, local lymph node assay (LLNA)

Assessment STOT Specific target organ toxicity – repeated exposure

Pyrethrin did not cause specific target organ toxicity in experimental animal studies.
Piperonyl butoxide did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Pyrethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Piperonyl butoxide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Pyrethrin was not carcinogenic in lifetime feeding studies in rats and mice.
Piperonyl butoxide was not carcinogenic in lifetime feeding studies in rats and mice.

Assessment toxicity to reproduction

Pyrethrin did not cause reproductive toxicity in a two-generation study in rats.
Piperonyl butoxide did not cause reproductive toxicity in a two-generation study in rats.

Assessment developmental toxicity

Pyrethrin did not cause developmental toxicity in rats and rabbits.
Piperonyl butoxide did not cause developmental toxicity in rats and rabbits.

Further information

The toxicological data refer to a similar formulation.

SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish	LC50 (Oncorhynchus mykiss (rainbow trout)) 0.244 mg/l Exposure time: 96 h
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 0.216 mg/l Exposure time: 48 h
Toxicity to aquatic plants	EC50 (Raphidocelis subcapitata (freshwater green alga)) 4.9 mg/l Exposure time: 72 h

12.2 Persistence and degradability

Biodegradability	Pyrethrin: Not rapidly biodegradable Piperonyl butoxide: Not rapidly biodegradable
Koc	Pyrethrin: Koc: 12472 - 74175 Piperonyl butoxide: Koc: 399 - 830



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12.3 Bioaccumulative potential

Bioaccumulation Pyrethrin: Bioconcentration factor (BCF) 471
Does not bioaccumulate.
Piperonyl butoxide:
Potential bioaccumulation

12.4 Mobility in soil

Mobility in soil Pyrethrin: Immobile in soil
Piperonyl butoxide: Moderately mobile in soils

12.5 Results of PBT and vPvB assessment

PBT and vPvB assessment Pyrethrin: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).
Piperonyl butoxide: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects

Additional ecological information No other effects to be mentioned.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product In accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Advice may be obtained from the local waste regulation authority (part of the Environment Agency in the UK).

Contaminated packaging Small containers (< 10 l or < 10 kg) should be rinsed thoroughly using an integrated pressure rinsing device, or, by manually rinsing three times.
Add washings to sprayer at time of filling.
Dispose of empty and cleaned packaging safely.
Large containers (> 25 l or > 25 kg) should not be rinsed or re-used for any other purpose.
Return large containers to supplier.
Follow advice on product label and/or leaflet.

Waste key for the unused product **02 01 08*** agrochemical waste containing dangerous substances

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN

14.1 UN number
14.2 Proper shipping name

3082
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(PYRETHRINS SOLUTION)

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14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Hazard no.	90
Tunnel Code	E

This classification is in principle not valid for carriage by tank vessel on inland waterways. Please refer to the manufacturer for further information.

IMDG

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Marine pollutant	YES

IATA

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES

UK 'Carriage' Regulations

14.1 UN number	3082
14.2 Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (PYRETHRINS SOLUTION)
14.3 Transport hazard class(es)	9
14.4 Packing group	III
14.5 Environm. Hazardous Mark	YES
Emergency action code	3Z

14.6 Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No transport in bulk according to the IBC Code.

SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****UK and Northern Ireland Regulatory References**

This material may be subject to some or all of the following regulations (and any subsequent amendments). Users must ensure that any uses and restrictions as indicated on the label and/or leaflet are followed.



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Transport

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No 1348)
Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No 2367)
Air Navigation Dangerous Goods Regulations 2002 (SI 2002 No 2786)

Supply and Use

Chemical (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No 716)
Chemical (Hazard Information and Packaging for Supply) (Northern Ireland) Regulations 2009
Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No 2677)
EH40 Occupational Exposure Limits - Table 1 List of approved workplace exposure limits
Control of Pesticide Regulations 1986
Dangerous Substances and Explosive Atmospheres Regulations 2002

Waste Treatment

Environmental Protection Act 1990, Part II
Environmental Protection (Duty of Care) Regulations 1991
The Waste Management Licensing Regulations 1994 (as amended)
Hazardous Waste Regulations 2005 (Replacing Special Waste Regulations 1996 as amended)
Landfill Directive
Regulation on Substances That Deplete the Ozone Layer 1994 (EEC/3093/94)
Water Resources Act 1991
Anti-Pollution Works Regulations 1999

Further information

WHO-classification: U (Unlikely to present acute hazard in normal use)

15.2 Chemical Safety Assessment

A chemical safety assessment is not required.

SECTION 16: OTHER INFORMATION

Text of the hazard statements mentioned in Section 3

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by



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ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
Conc.	Concentration
EC-No.	European community number
ECx	Effective concentration to x %
EH40 WEL	Worker Exposure Limit
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
EN	European Standard
EU	European Union
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code)
ICx	Inhibition concentration to x %
IMDG	International Maritime Dangerous Goods
LCx	Lethal concentration to x %
LDx	Lethal dose to x %
LOEC/LOEL	Lowest observed effect concentration/level
MARPOL	MARPOL: International Convention for the prevention of marine pollution from ships
N.O.S.	Not otherwise specified
NOEC/NOEL	No observed effect concentration/level
OECD	Organization for Economic Co-operation and Development
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SI	Statutory Instrument
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

Reason for Revision: Safety Data Sheet according to Regulation (EU) No. 2015/830. The following sections have been revised: Section 2: Hazards Identification. Section 3: Composition / Information on Ingredients.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.