

1 Identification of the preparation and the supplying Company

1.1 Killgerm ULV500

1.2 A ready to use, ULV, oil based formulation for the control of two winged flies (including mosquitoes), fleas, cockroaches, beetles, moths and booklice, ants, wasps, earwigs, silverfish and other bristletails, bedbugs, mites, spiders, ticks in domestic and public hygiene situations.

1.3 Killgerm Chemicals Ltd, Wakefield Road, Ossett, West Yorkshire, WF5 9AJ.

Tel: +44 (0)1924 268450 Fax: (0)1924 265033 Email: technical@Killgerm.com

1.4 Emergency telephones. National Poisons Information Service 0870 600 6266 (for professional medical personnel only), NHS 24 service 111 (for non-professionals), National Poisons Information Centre 01-8092166 (Ireland Only)

Killgerm Chemicals Ltd, 01924 268452 (Office hours)

2 Hazards identification

2.1. Classification of the substance or mixture

According to Regulation (EC) 1272/2008

Asp TOX 1



H304: May be fatal if swallowed and enters airways
Aq Chronic 2



H411: Toxic to aquatic life with long lasting effects

According to Directive 1999/45/EC

Xn Harmful



R65 May Cause lung damage if swallowed



R51/53 Toxic to aquatic organisms may cause long term adverse effects in the aquatic environment

2.2. Label elements

The following safety phrases are appropriate (Directive 1999/45/EC):

Keep locked up and out of reach of children

Keep away from food, drink and animal feeding stuffs

When using do not eat, drink or smoke

Wear suitable gloves

If swallowed, seek medical advice immediately and show a copy of the SDS or label.

Use appropriate containment to avoid environmental contamination.

This material and its container must be disposed of in a safe way

The following precautionary phrases are appropriate (Regulation (EC) 1272/2008):

Keep out of reach of children
 Read label before use
 Avoid release to the environment
 Wear protective gloves
 IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
 Do NOT induce vomiting
 Store locked up in a closed container.
 Dispose of contents/container in accordance with national regulations.

Additional safety Information

To avoid risks to human health and the environment, comply with instructions for use.

2.3. Other hazard

None expected under normal conditions of use

3 Composition and information on ingredients

3.2. Mixtures

Hazardous Components in Product

Ingredient Name	Classification	Concentration	R Phrases	H Phrases
Tetramethrin CAS no 7696-12-0	Physical and Chemical Hazards Not classified. Human health Not classified. Environment Aquatic Acute 1 Aquatic Chronic 1	2.2%w/w	R50 R53	H410 H400
d-phenothrin CAS no 26046-85-5	Physical and Chemical Hazards Not classified. Human health Not classified. Environment Aquatic Acute 1 Aquatic Chronic 1	4.4%w/w	R50 R53	H410
Piperonyl butoxide CAS No:51-03-6	Aquatic Acute 1 Aquatic Chronic 1	9.6%w/w	R50 R53	H400 H410
Odourless kerosene CAS 64742-47-8	Aspiration TOX 1	67.4%w/v	R65 R66	H304
Aromatic solvent	Target organ toxicant (central nervous system): Category 3. Aspiration toxicant: Category 1. Chronic aquatic toxicant: Category 2.	3.0%w/v	R51/R53 R65 R66 R67	H304 H336 H411 EUH066

See section 16 for full text of R-phrases, H phrases and hazard classification of ingredients.

4 First Aid measures

4.1. Description of first aid measures

Ingestion (swallowing): DO NOT INDUCE VOMITING. GET MEDICAL ATTENTION. Wash out mouth with water. If spontaneous vomiting has occurred keep patient at rest, ensuring airways are clear, and phone for an ambulance with oxygen facilities.

Inhalation: Remove to fresh air. Loosen clothing at neck. Keep at rest. GET MEDICAL ATTENTION.

Skin contact: Remove contaminated clothing. Wash off with soap and water. GET MEDICAL ATTENTION.

Eye contact: Flush thoroughly with eye wash solution or clean water for 15 minutes. GET MEDICAL ATTENTION

4.2. Most important symptoms and effects, both acute and delayed: No further relevant information available

4.3. Indication of any immediate medical attention and special treatment needed: No further relevant information available

5 Fire-fighting measures

5.1. Extinguishing media Use water spray, dry powder or foam. DO NOT USE WATER JET.

Self-contained breathing apparatus should be worn by fire fighters.

5.2. Special hazards arising from the substance or mixture: Advise Environment Agency (emergency telephone number 0800 807060) or the water company if material has entered the drains.

5.3. Advice for fire-fighters Self-contained breathing apparatus should be worn by fire fighters. Warn those at risk that toxic fumes are evolved.

6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures: Wear appropriate PPE. Remove sources of ignition.. Indoors, wash area with soap and water. Outdoors, do not wash spillages or contaminated material to drains.

6.2. Environmental precautions: Shovel up contaminated soil, vegetation, etc., and transfer to a marked container. Dispose of via a contractor or contact supplier for advice. Use appropriate containment to avoid environmental contamination

6.3. Methods and material for containment and cleaning up: Absorb in sand, earth or proprietary product, shovel into marked container and contact a waste disposal firm or the supplier for disposal advice

6.4. Reference to other sections:

7 Handling and storage

7.1. Precautions for safe handling

This product is subject to the Food and Environment Protection Act, 1985 and The Control of Pesticides Regulations 1986 made under it. The product must be used and stored only in accordance with the product label. Keep away from sources of ignition – No smoking Wear suitable protective clothing.

Do not breathe mist. Otherwise wear respiratory protective equipment and eye protection (see HSE Guidance Booklet HS(G) 53; "The Selection, Use and Maintenance of Respiratory Protective Equipment- A Practical Guide"). WASH HANDS AND EXPOSED SKIN before meals and after use. Wash any contamination from skin or eyes immediately. AVOID EXCESSIVE CONTAMINATION OF COVERALLS AND LAUNDER REGULARLY. DO NOT CONTAMINATE FOODSTUFFS, EATING UTENSILS OR FOOD CONTACT SURFACES.

COVER WATER STORAGE TANKS before application. EXCLUDE ALL PERSONS AND ANIMALS DURING TREATMENT. DO NOT APPLY DIRECTLY TO ANIMALS. VENTILATE TREATED AREAS THOROUGHLY after application. COLLECT EGGS AND REMOVE FEED, EXPOSED WATER AND MILK BEFORE APPLICATION. HAZARDOUS TO BEES. Protect milk machinery and milk containers from contamination. REMOVE OR COVER ALL FISH TANKS AND BOWLS before application. Read product label for other handling precautions.

7.2. Conditions for safe storage, including any incompatibilities

Incompatible with strong oxidising agents, strong acids and strong bases.

7.3. Specific end use(s)

THIS MATERIAL AND ITS CONTAINER must be disposed of in a safe way. Use appropriate containment to avoid environmental contamination. Avoid release to the environment.

8 Exposure controls and personal protection

8.1. Control parameters

8.2. Exposure controls

Where exposure may occur engineering controls should be employed. A risk assessment should be carried out and the following PPE may be appropriate /required

PPE	ITEM IN USE	SPILLAGE
Respirators	Half mask respirator to EN140 plus A1P2 class filter to EN141 (minimum).	Half mask respirator to EN140 plus A1P2 class filter to EN141 (minimum)
Gloves	Unlined synthetic rubber/PVC (300mm) (EN374:2003 J**) eg. Solvex nitrile	Unlined synthetic rubber/PVC (300mm) (EN374:2003 J**) eg. Solvex nitrile
Overall	Low levels of contamination-Coverall type 5/6. High levels of contamination-Coverall type 4.	Low levels of contamination- Covera type 5/6 High levels of contamination-Coverall type 4.
Goggles/ Face shield	Goggles to EN166 34	Face shield to EN166 3

9 Physical and chemical properties

9.1. General information

- (a) Appearance: Straw coloured liquid
- (b) Odour: If odour is perceptible, a brief description of it shall be given; Slight kerosene odour
- (c) Odour threshold;
- (d) pH: Not applicable
- (e) Melting point/freezing point; no available data
- (f) Initial boiling point and boiling range; no available data
- (g) Flash point; 67°C.
- (h) Evaporation rate; no available data
- (i) Flammability ; Flammable, will burn at room temperatures to evolve toxic combustion products
- (j) Upper/lower flammability or explosive limits; no available data
- (k) Vapour pressure; no available data
- (l) Vapour density; no available data
- (m) Relative density;

- (n) Solubility(ies); not soluble in water. no specifics available (soluble in hydrocarbon liquids)
(o) Partition coefficient: n-octanol/water;
(p) Auto-ignition temperature; no available data
(q) Decomposition temperature; no available data
(r) Viscosity; no available data
(s) Explosive properties; not applicable
(t) Oxidising properties. no available data

10 Stability and reactivity

10.1. Reactivity: Not a reactive formulation

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: Incompatible with strong oxidising agents, strong acids and strong bases.

10.6. Hazardous decomposition products: No decomposition products expected under normal conditions of use.

11 Toxicological information

11.1 Information on toxicological effects

- (a) Acute toxicity: Information has been derived from the properties of the individual ingredients.
(b) Corrosivity/Irritation:
(c) Sensitisation: contains no known skin or respiratory sensitizers.
(d) Repeated dose toxicity: The product has not been tested. Repeated exposure to small quantities may affect certain organs.
(e) Mutagenicity/Carcogenicity: Product does not contain any ingredients known to have such effects.
(f) Reproductive toxicity: No available data

11.2 Other data: see section 2.3

12 Ecological information

12.1. Toxicity: Ecological toxicity has been derived from the properties of individual ingredients. No testing has been carried out (see data below for ecological toxicity of ingredients)

PBO: Piperonyl Butoxide

LC50 (96h): 3,94 mg/l *Cyprinodon variegatus* (fish)

EC50 (48h): 0,51 mg/l *Daphnia magna* (aquatic invertebrates)

IC50 (72h): 2,09 mg/l *Selenastrum capricornutum* (algae)

Tetramethrin: Acute Fish Toxicity

Very toxic to aquatic organisms.

LC 50, 96 Hrs, Fish mg/l 0.0037

EC 50, 48 Hrs, *Daphnia*, mg/l 0.110

IC 50, 72 Hrs, Algae, mg/l 0.94

D phenothrin: Acute Fish Toxicity

Very toxic to aquatic organisms.

LC 50, 96 Hrs, Fish mg/l 2.7×10^{-3}

EC 50, 48 Hrs, *Daphnia*, mg/l 4.3×10^{-3}

IC 50, 72 Hrs, Algae, mg/l 0.011 (96 hr, EC₅₀)

Odourless Kerosene:

Aquatic toxicity:

LC/EC/IC 50 >100 mg/l (fish)

>100 mg/l (algae)

>100 mg/l (TISBE Marine copepod)

>100 mg/l (Activated Sludge)

NOEC 0.1 - ≤ 1.0 mg/l (fish)
1.0 - ≤ 10 mg/l (TISBE Marine copepod)

12.2. Persistence and degradability: not available

PBO: The substance is not readily biodegradable.

Tetramethrin: The product is not readily biodegradable. Photodegradable.

D phenothrin: The product is not readily biodegradable. Photodegradable.

Odourless Kerosene: *The product is easily biodegradable*

12.3. Bio-accumulative potential: not available

PBO: BCF: 91 - 260 -380.

Tetramethrin: No data available on bioaccumulation.Partition coefficient (n-octanol/water): 4.58

D phenothrin: Will not bio-accumulate.

Odourless Kerosene: *May be accumulated in organism*

12.4. Mobility in soil: not available

PBO: The substance has a low-to-moderate potential of mobility in soil.

Tetramethrin: Readily absorbed into the soil.

D phenothrin: Readily absorbed into the soil.

Odourless Kerosene: No further relevant information available.

12.5. Results of PBT and vPvB assessment: not available**12.6. Other adverse effects:** none known**13 Disposal considerations****13.1. Waste treatment methods**

Empty containers: Do not re-use – empty completely. Dispose of as controlled waste. Ensure containers are empty. Treat as hazardous waste. Use EWC (European Waste Catalogue) code 20 01 19 on consignment notes. Treat empty packaging as hazardous waste, use EWC code 20 01 19.

Unused/recovered materials: Do not dispose in domestic waste. Dispose of as controlled waste. Treat as hazardous waste. Use EWC code 20 01 19

Contaminated PPE/ wipes/contaminated boxes/ spill control material: Treat as controlled waste. For low levels of contamination, treat as non-hazardous waste. Use EWC code 15 02 03. For heavily contaminated items treat as hazardous waste and use EWC code 15 02 02*. Contact supplier for advice on disposal matters.

14 Transport information

14.1. UN number: UN No 3082.

14.2. UN proper shipping name: Environmentally hazardous substance

14.3. Transport hazard class(es) : Class 9

14.4. Packing group: Packing Group III

14.5. Environmental hazards: Marine Pollutant

14.6. Special precautions for user:

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

15 Regulatory information

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

This product has been classified in accordance with Regulation (EC) 1272/2008 CLP . These implement the Dangerous Preparations Directive- 99/45/EC. This Safety Data Sheet complies with CHIP 4 requirements and the Safety Data Sheets Directive 91/155/EEC (as amended by Directives 93/112/EC and 2001/58/EC).

This product is approved under The Control of Pesticides Regulations 1986. HSE no. 4647

15.2. Chemical safety assessment: Advice on product handling can be found in sections 7 and 8.

16 Other information

This data sheet does not constitute a COSHH assessment.

The information contained within this data sheet is strictly for general guidance only and should not be relied upon over and above this. This data sheet is intended to provide general health and safety guidance on the handling, storage and transportation of the preparation. The information provided in this data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted by Killgerm Chemicals Limited for any loss, injury or damage arising from any failure to comply with the information and advice contained within this data sheet and/or failure to comply with the manufacturer's guidelines, product label data and any associated technical usage literature.

· Restricted to professional users.

To avoid risks to man and the environment, comply with the instructions for use.

· Symbols : Xn – Harmful

N - Dangerous for the environment.

· R-phrases : R65. R51. R53

· S-phrases : S23, S24, S57, S61, S62.

R50- Very toxic to aquatic organisms.

R51- Toxic to aquatic organisms.

R53- May cause long-term adverse effects in the aquatic environment.

R65- Harmful: may cause lung damage if swallowed.

R66- Repeated exposure may cause skin dryness or cracking.

R67- Vapours may cause drowsiness or dizziness.

S23- Do not breathe spray.

S24- Avoid contact with skin.

S57- Use appropriate containment to avoid environmental contamination.

S61- Avoid release to the environment. Refer to special instructions/ safety data sheet.

S62- If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

H304: May be fatal if swallowed and enters airways

H336: May cause drowsiness or dizziness

H411: Toxic to aquatic life with long lasting effects

EUH066: Repeated exposure may cause skin dryness or cracking

Asp TOX 1

P301+310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P331: Do NOT induce vomiting

P405: Store locked up

P501: Dispose of contents/container in accordance with national regulations

Date of amendment	Sections amended	notes
22-7-15	Section 9, 12	Updated ingredient information on ecological toxicity data and physical and chemical properties

