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

1.1 Product identifier

Vazor ULV 500

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

Relevant identified uses:
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. Specially formulated for use inside aircraft, in and around airport buildings and stores.
Uses advised against:
Not for use on grain or in empty grain stores.

1.3. Details of the supplier of the safety data sheet

Address: Killgerm Chemicals Ltd, Wakefield Road, Ossett, WF5 9AJ
Tel: +44 (0)1924 268 450 **Fax:** +44 (0)1924 265 033 **Email:** technical@killgerm.com

1.4. Emergency telephone number

Medical professionals should use National Poisons Information Service Tel: 0870 600 6266.
Killgerm Chemicals Ltd Tel:01924 268452 (Office hours) Emergency Line 01865407333
Non-medical professionals should seek information by contacting NHS by dialling 111.

SECTION 2: Hazards identification

2.1. Classification of the mixture according to Regulation (EC) No. 1272/2008 [CLP]

Aspiration Tox Cat.1	**H304:** May be fatal if swallowed and enters airways.
Category 2 Eye irritation	**H319:** Causes serious eye irritation.
Aquatic Chronic Cat.1	**H410:** Very toxic to aquatic life with on lasting effects.

2.2. Label elements

GHS08 **GHS09** **GHS07**

Signal Word: **Danger**

Hazard statements:

H304: May be fatal if swallowed and enters airways.
H319: Causes Serious eye irritation.
H410: Toxic to aquatic life with long lasting effects.

Precautionary statements:

P202: Do not handle until all safety precautions have been read and understood.
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves and eye protection.
P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331: Do NOT induce vomiting
P337 + P313: If eye irritation persists: Get medical advice/attention.
P391: Collect spillage. Hazardous to the aquatic environment.
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Safety data sheet available for professional user on request.
To avoid risks to human health and the environment, comply with instructions for use.

2.3. Other hazards

None expected under normal conditions of use.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous Components in Product

Ingredient Name	Classification	Concentration	H Phrases
Tetramethrin CAS No. 7696-12-0 M = 100 M(Chronic) = 100	Acute Tox. 4 Carc.2 STOT SE 2 (Inhalation) Aquatic Acute 1 Aquatic Chronic 1	0.8% (w/w)	H302 H351 H371 H400 H410
1R Trans phenothrin CAS No. 26046-85-5 M = 100 M(Chronic) = 10	Aquatic Acute 1 Aquatic Chronic 1	4.4%(w/w)	H400 H410
Piperonyl butoxide CAS No. 51-03-6 M = 1 M(Chronic) = 1	Eye Irrit. 2 STOT SE 3 (Respiratory) Aquatic Acute 1 Aquatic Chronic 1	8.8% (w/w)	H319 H335 H400 H410
Odourless Kerosene CAS No. 64742-47-8	Aspiration Tox 1	80% (w/w)	H304
Aromatic solvent	Aspiration Tox 1 STOT SE (Narcotic) 3 Aquatic Chronic 2	3%(w/w)	H304 H336 H411 EUH066

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General: If during or after use/exposure you begin to feel unwell, seek medical attention bringing a copy of the product label/the SDS.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. SEEK MEDICAL ADVICE.

Skin contact: Remove all contaminated clothing. Wash skin with soap and water. SEEK MEDICAL ADVICE.

Ingestion: DO NOT induce vomiting. GET MEDICAL ATTENTION. Rinse mouth carefully with water. If swallowed, seek medical advice immediately and show the product's container or label where possible. Where spontaneous vomiting has occurred keep patient at rest, ensuring airways are clear and call for ambulance.

Inhalation: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Seek Medical Advice.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing agents: Water Mist, foam, dry chemical, or carbon dioxide.

Unsuitable agents: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

If extinguishing media or spilt product enters drains or water courses, alert the Environment agency (emergency telephone number 0800 807060) or the relevant water company.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and appropriate protective equipment. Fire residues and contaminated extinguishing media should be disposed according to current regulation. Warn those at risk that toxic fumes are produced.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures

Wear appropriate PPE (See section 8.2). Remove sources of ignition. Do not wash spillage or contaminated material to drains.

6.2. Environmental precautions

Shovel up contaminated soil, vegetation, etc. and transfer to a marked container. Dispose of as hazardous waste following local regulations (See section 13).

6.3. Methods and material for containment and cleaning up

Absorb spilt product with sand, diatomaceous earth, or similar absorbents and transfer to a marked container. Dispose of as hazardous waste Following local regulations. Clean area with soap and water where possible.

6.4. Reference to other sections

See section 8 for protective clothing. See section 7 for safe handling. See section 13 for disposal.

SECTION 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

Store closed container in a secure location away from children and animals when not in use.
Do not store alongside strong oxidising agents, acids, and bases.

7.3. Specific end use(s)

See section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Contains no substances with workplace exposure limits.

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	Wear half mask respirator (EN140) plus A1P2 class filter minimum (EN141)	Wear half mask respirator (EN140) plus A1P2 class filter minimum (EN141)
Gloves	Protective Gloves to EN 374 e.g. Nitrile.	Protective Gloves to EN 374 e.g. Nitrile.

Overall	Low levels of contamination: coverall type 5/6. High Levels of contamination: coverall type 4	Low levels of contamination: coverall type 5/6. High Levels of contamination: coverall type 4
Goggles	Goggles to EN 166 34	Goggles to EN 166 34

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink, and animal feeding stuffs.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:	Straw coloured liquid.
Odour:	Slight kerosene odour.
Odour threshold:	No data
pH:	Not applicable.
Melting point/freezing point:	No available data.
Initial boiling point/boiling range:	No available data.
Flash point:	67°C
Evaporation rate:	No available data.
Flammability:	Flammable, will burn at room temperature to evolve toxic products
Upper/lower flammability or explosive limits:	No available data.
Vapor pressure:	No available data.
Vapor density:	No available data.
Relative density:	No available data.
Solubility(ies):	Not soluble in water. Soluble in hydrocarbon liquids.
Partition coefficient n-octanol/water (log Kow):	No available data.
Auto-ignition temperature:	No available data.
Decomposition temperature:	No available data.
Viscosity:	No available data.
Explosive properties:	Not applicable.
Oxidising properties:	No available data.

9.2 Other Information

No further relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage, and transport.

10.2. Chemical stability

Stable under recommended conditions of storage and handling.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Strong acid. Strong bases. Strong oxidising agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Classification of the product was conducted by calculation method according to regulation 1272/2008 based on the content of hazardous ingredients:

a) acute toxicity: Based on data available classification criteria not met. Information has been derived from the properties of the individual ingredients.

Tetramethrin:
LD50 (Oral): >2000 mg/kg bw (Rat)
STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP
LD50 (Dermal): >2000 mg/kg bw (Rat)
LC50 (Inhalation): >5.63 mg/l/4h (Rat)

1R-trans Phenothrin:
LD50 (Oral): 5000 mg/kg bw (Rat)
LD50 (Dermal): >2000 mg/kg bw (Rat)
LC50 (Inhalation): >5.3 mg/l (Rat)

Piperonyl Butoxide:
LD50 (Oral): 4570 mg/kg bw (Rat, male)
LD50 (Dermal): >2000 mg/kg bw (Rabbit)
LC50 (Inhalation): >5.9 mg/l/4h (Rat)

Odourless Kerosene:
LD50 (Oral): >5000 mg/kg (Rat)
LD50 (Dermal): >5000 mg/kg (Rabbit)
LD50 (Inhalation): Greater than near saturated vapour concentration

b) irritation: Classed as category 2 eye irritation.
c) corrosivity: Based on data available classification criteria are not met.
d) sensitisation: Based on data available classification criteria are not met.
e) repeated dose toxicity: The product has not been tested. Repeated exposure to small quantities may affect certain organs. Information derived from the properties of the individual ingredients.
f) carcinogenicity: Product classified as a category 2 carcinogen.
g) mutagenicity: Product does not contain any compounds with germ cell mutagenicity hazard.
h) toxicity for reproduction: Based on data available. classification criteria are not met.
i) aspiration: Product classified as Aspiration toxic cat 1. Information has been derived from the properties of the individual ingredients.

11.2. Other Data
See section 2.3

SECTION 12: Ecological information

12.1. Toxicity
Ecological toxicity has been derived from the properties of the individual ingredients. No testing has been carried out.
Ingredient toxicity data:

PBO (Piperonyl Butoxide): LC50 (96h): 3.94 mg/l Fish (Cyperinodon variegatus) EC50 (48h): 0.51 mg/l Aquatic invertebrates (Daphnia Magna) EC50 (72h): 3.89 mg/l Algae (Selenastrum Capricornutum) Chronic NOEC: 0.18 mg/l Fish (Pimephales promelas) Chronic NOEC: 0.03 mg/l/21d Crustacea (Daphnia Magna) Chronic NOEC: 0.824 mg/l Algae(Selenastrum Capricornutum)	**1R Trans Phenothrin:** Very toxic to aquatic organisms. LC50 (96h) 0.0559 mg/l Fish EC50 (48h) 0.0046 mg/l Aquatic invertebrates EC50 (72h) > 5 mg/l Algae
Tetramethrin: Very toxic to aquatic organisms. LC50 (96h) mg/l 0.033 Fish EC50 (48h) mg/l 0.47 Aquatic invertebrates EC50 (72h) mg/l 1.36 Algae Chronic NOEC mg/l 0.72 Algae	**Odourless Kerosene:** LL50 >100 mg/l Fish LL50 >100 mg/l Aquatic invertebrates (Marine copepod) LL50 >100mg/l Algae LL50 >100mg/l Activated sludge NOEC >0.1 - <1.0 mg/l Fish NOEC >001 - <1.0 mg/l Aquatic invertebrates

Piperonyl Butoxide: Predicted no-effect concentration - PNEC

Normal value in fresh water	0.00148	mg/l
Normal value in marine water	0.000148	mg/l
Normal value for freshwater sediment	0.043	mg/kg

Normal value for marine water sediment	0.0043	mg/kg
Normal value of STP microorganisms	2.89	mg/l
Normal value for the terrestrial compartment	0.111	mg/kg dwt

Piperonyl Butoxide: Health – Derived no-effect level – DNEL / DMEL

Effect on consumer:	Effect on workers:
Oral (Chronic systemic) 0.221 mg/kg bw/d	
Inhalation (Chronic systemic) 0.388 mg/m^3	Inhalation (Chronic systemic) 1.6 mg/m^3
Skin (Chronic systemic) 0.221 mg/kg bw/d	Skin (Chronic systemic) 0.443 mg/kg bw/d

12.2. Persistence and degradability

Product not tested; data given for the ingredients
PBO: Not rapidly biodegradable.
Tetramethrin: Moderately biodegradable.
1R Trans Phenothrin: Not readily biodegradable. Photodegradable.
Odourless Kerosene: Readily biodegradable. Oxidises rapidly by photochemical reactions in air.

12.3. Bio accumulative potential

Product not tested; data given for the ingredients.
PBO: BCF:91-260-380. Partition coefficient (n-octanol/water): 4.8 Log Kow.
Tetramethrin: Partition coefficient (n-octanol/water): > 4.09 Log Know
1R Trans Phenothrin: Will not bio-accumulate. Partition coefficient (n-octanol/water): 6.8 Log Kow.
Odourless Kerosene: May be accumulated in organism.

12.4. Mobility in soil

Product not tested; data given for the ingredients.
PBO: has a low to moderate potential of mobility in soil.
Tetramethrin: The values of Koc (2045; 2754) indicate that it is immobile and remains preferentially in soil.
1R Trans Phenothrin: Readily absorbed into the soil.
Odourless Kerosene: The product is insoluble in water and will spread on the water surface.

12.5. Results of PBT and vPvB assessment

Product not tested; data given for the ingredients.
The product does not contain any substances with persistence, bioaccumulation, and toxicity (PBT) properties and is not very persistent and very bio accumulative.(vPvB).

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain any compounds with suspected endocrine disruptors

12.7. Other adverse effects

No further data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal of unused product, empty containers and contaminated packaging must be made in accordance with the local law. For information on disposal in the UK contact the environment agency (www.environment-agency.gov.uk) or SEPA (www.SEPA.org.uk).
Dispose of unused product in the original container as hazardous waste.
Empty containers and contaminated PPE should be considered hazardous and disposed of appropriately.
Suggested European waste code 20 01 19.

SECTION 14: Transport information

14.1. UN number

UN 3082

14.2. UN proper shipping name

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

14.3. Transport hazard class(es).

Class 9

14.4. Packing group

Group III

14.5. Environmental hazards

Marine Pollutant

14.6. Special precautions for user

None

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

Not applicable.

SECTION 15: Regulatory information

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

Labelling according to The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019
Control of Substances Hazardous to Health Regulations 2002 (as amended).
The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.
• Restricted to trained professional users in the UK and professional users in Ireland.
• Refer to other relevant measures such as the Health and Safety at Work etc Act 1974 and the COSHH regulations and guidance.
• The information contained in this data sheet does not constitute the user's own assessment of workplace risks as required by legislation.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other information

Use only in accordance with label instructions.
Operatives using this product should be trained in its use.
The information in this data sheet should be considered when undertaking a risk assessment under the COSHH regulations.

Ingredient classification data:

Acute Toxicity Cat 4.	H302 Harmful if swallowed
Aspiration Toxicity Cat 1.	H304 May be fatal if swallowed and enters airways
Eye Irritation Cat 2.	H319 Causes serious eye irritation
Specific target organ toxicity – Single Exposure Cat 3	H335 May cause respiratory irritation
Specific target organ toxicity – Single Exposure Cat 3	H336 May cause drowsiness or dizziness.
Carcinogen Cat 2	H351 Suspected of causing cancer Specific target organ
toxicity – Single Exposure Cat 2	H371 May cause damage to organs.
Acute Aquatic Toxicity cat1	H400 Very toxic to aquatic life
Chronic Aquatic Toxicity Cat.1	H410 Very toxic to aquatic life with long lasting effects.
Chronic Aquatic Toxicity Cat.2	H411 Toxic to aquatic life with long lasting effects.

EUH066: Repeated exposure may cause skin dryness or cracking.

Issue number (date)	Section amended
Issue (Nov 2019)	First issue
Issue (Oct 2019)	Update to style and layout – some updates to minor wording.
Issue (Dec 2020)	Amended precautionary phrases to separate P404+P405
Issue (Jan 2022)	Updated ingredient and hazard data following 13th ATP to CLP Addition of emergency number – Update to Section 15 legislation
Issue (Apr 2024)	Updated classification and ingredient classification data. Update to emergency number. M factors added in Section 3.2. Updates to Section 11.1 (acute toxicity data) and the whole of Section 12. Minor updates to phrasing throughout.

This safety 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.