SAFETY DATA SHEET

Conforms to Regulation EC 1907/2006 (REACH) as amended by Regulation (EU) 2015/830

ZER906 – ZERO IN FLY & WASP KILLER

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

1.1. Product identifier

Zero In Fly & Wasp Killer

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

For use as an insecticide

1.3. Details of the supplier of the safety data sheet

STV EU B.V.
Joop Geesinkweg 701
1114AB, Amsterdam-Duivendrecht
Netherlands

+ 44 (0) 1953 881 580 (Office hours only)
info@stvpestcontrol.com

1.4. Emergency telephone number

For product information, contact STV International Ltd on the telephone number stated in section 1.3.

In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

For urgent medical advice, call the NHS Helpline on 111 (England, Scotland & Wales).
For medical emergencies, dial 999 (UK & Ireland) or 112 from any EU country.

Environmental agency emergency phone number 0800 807060.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008
Flam. Aerosol 1; H222, H229
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

2.2. Label elements

Hazard Pictogram

GHS02, GHS09

Signal Word

Danger

Hazard Statements

H222: Extremely flammable aerosol.
H229: Pressurised container: May burst if heated.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children
P103 Read label before use
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/container in accordance with local/national regulations.

Other labelling required under Regulation (EC) 1272/2008

EUH208: Contains permethrin. May produce an allergic reaction.

2.3. Other hazards

This mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No 1907/2006 (REACH).

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical Name	**CAS/EC No**	**Classification in accordance with Regulation (EC) 1272/2008**	**Conc [%]**
Butane	106-97-8 203-448-7	Flammable Gas 1; H220	<20
PIPERONYL BUTOXIDE	51-03-6 200-076-7	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 M factor (Acute) = 1 M factor (Chronic) = 1	<1
TETRAMETHRIN	7696-12-0 231-711-6	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 M factor (Acute) = 1 M factor (Chronic) = 10	<1

PERMETHRIN	52645-53-1 258-067-9	Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 M factor (Acute) = 100 M factor (Chronic) = 1000	<1

Full text of hazard statements is displayed in section 16.

SECTION 4: First aid measures
4.1. Description of first aid measures

This product is not considered to be hazardous to human health. However, if exposure occurs, the following first aid measures should be followed:

Inhalation
Move exposed person to fresh air. If breathing discomfort occurs, seek medical attention.

Skin
Wash contaminated skin with plenty of soap and water. Seek medical attention if skin irritation occurs.

Eyes
Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Seek medical attention if eye irritation occurs.

Ingestion
Wash out mouth with water. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2. Most important symptoms and effects, both acute and delayed
Inhalation - Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion - Gastrointestinal symptoms, including upset stomach.
Skin contact – The product contains a sensitising substance.
Eye contact- May cause discomfort.

4.3. Indication of any immediate medical attention and special treatment needed
No specific advice. Treat symptomatically.

SECTION 5: Firefighting measures
5.1. Extinguishing media
Suitable extinguishing media
Extinguish with foam, carbon dioxide or dry powder.

Unsuitable extinguishing media
Not applicable.

5.2. Special hazards arising from the substance or mixture
Extremely flammable aerosol. Pressurised container: may burst if heated.
Thermal decomposition or combustion products may include the following substances:
Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

5.3. Advice for firefighters
Cool containers exposed to flames with water until well after the fire is out.
Wear protective clothing to prevent contact with skin and eyes.
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Do not touch or walk into spilled material. No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapours. Provide adequate ventilation. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Avoid contact with contaminated tools and objects. Take care as floors and other surfaces may become slippery. Do not handle broken packages without protective equipment. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions
Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Environmental agency emergency phone number 0800 807060.

6.3. Methods and material for containment and cleaning up
Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. Provide adequate ventilation. Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.

6.4. Reference to other sections
See section 1 for emergency contact information.
See section 8 for information on appropriate personal protective equipment.
See section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
To avoid risks to human health and the environment, comply with the instructions for use. Use biocides safely. Always read the label and product information before use. Wear protective gloves. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide adequate ventilation. Keep container in a well-ventilated place. Avoid contact with skin, eyes and clothing. Avoid breathing vapour/spray. Do not expose to temperatures exceeding 50°C/122°F. Do not spray on an open flame or other ignition source. Keep out of the reach of children. Do not pierce or burn, even after use. Do not empty into drains. Do not eat, drink or smoke when using this product. Avoid contact with contaminated tools and objects. Do not handle broken packages without protective equipment. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities
Store at temperatures between 4°C and 40°C. Do not expose to temperatures exceeding 50°C/122°F. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep out of the reach of children.
Storage class Flammable compressed gas storage.

7.3. Specific end use(s)
For use as an insecticide

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Occupational exposure limits

Substance	**CAS number**	**Workplace Exposure Limit**				**Comments**
		Long-term exposure limit (8-hr TWA reference period)		**Short-term exposure limit (15 minute reference period)**		**The Carc, Sen and Sk notations are not exhaustive. Notations have been applied to the substances identified in IOELV Directives**
		ppm	**mg.m^{-3}**	**ppm**	**mg.m^{-3}**	
Butane	106-97-8	600	1450	750	1810	Carc (only applies if LPG contains more than 0.1% of buta-1,3-diene)

PERMETHRIN (CAS: 52645-53-1)
DNEL - Oral; : 16.7 - 120 mg/kg
PNEC - Fresh water; 0.00000047 mg/l
- STP; 0.00495 mg/l
- Soil; >0.0876 mg/kg
- Sediment (Freshwater); 0.01 mg/kg

8.2. Exposure controls

Engineering controls
If user operations generate dust, fumes, gas, vapour or mist use Process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended statutory limits.

Eye/face protection
Eye/face protection not normally required.
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection
Hand protection not normally required.

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. After contamination with product change gloves immediately and dispose of them according to relevant national and local regulations.
Recommended : (<1 hour) PVC , Nitrile gloves.

Respiratory protection
No personal respiratory protective equipment normally required. 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. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Always follow respirator manufacturer's instructions regarding wearing and maintenance. Recommended: Full mask with type ABEK filter.

Environmental exposure controls
Steps should be taken to ensure that this product is not released accidentally into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Colourless aerosol
Odour: Characteristic
Odour threshold: Information not available
pH: Information not available
Melting point/freezing point: Information not available
Initial boiling point and boiling range: Information not available
Flash point: Information not available
Evaporation rate: Information not available
Flammability: Extremely flammable aerosol
Upper/lower flammability or explosive limits: Information not available
Vapour pressure: Information not available
Vapour density: Information not available
Relative density: Information not available
Solubility(ies): Information not available
Partition coefficient: n-octanol/water: Information not available
Auto-ignition temperature: Information not available
Decomposition temperature: Information not available
Viscosity: Information not available
Explosive properties: Information not available
Oxidising properties: Information not available

9.2. Other information

None

SECTION 10: Stability and reactivity

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Product is stable under normal storage and handling conditions.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid
Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products
Thermal decomposition or combustion products may include the following substances: Ammonia or amines. Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Toxicity of product

Acute toxicity:	Not expected to be toxic.
Skin corrosion/irritation:	Product is not classified as causing skin corrosion or irritation.
Serious eye damage/irritation:	Product is not classified as causing serious eye damage or irritation
Respiratory or skin sensitisation:	The product contains a sensitising substance. Vapours may cause headache, fatigue, dizziness and nausea
Germ cell mutagenicity:	No information specified.
Carcinogenicity:	No information specified.
Reproductive toxicity:	No information specified.
STOT-single exposure:	No information specified.
STOT-repeated exposure:	No information specified.
Aspiration hazard:	No information specified.

Toxicity of ingredients
TETRAMETHRIN
Acute toxicity - oral
Acute toxicity oral (LD_{50} mg/kg)
2,000.0
Species Rat
Acute toxicity - dermal
Acute toxicity dermal (LD_{50} mg/kg)
2,000.0
Species Rat

PERMETHRIN
Acute toxicity - oral
Acute toxicity oral (LD_{50} mg/kg)
554.0
Species Rat
ATE oral (mg/kg) 554.0
Acute toxicity - dermal
Acute toxicity dermal (LD_{50} mg/kg)
2,000.1
Species Rat
ATE dermal (mg/kg)
2,000.1
Acute toxicity - inhalation
Acute toxicity inhalation
(LC_{50} dust/mist mg/l)
4.638

Species Rat
ATE inhalation
(dusts/mists mg/l)
4.638

SECTION 12: Ecological information

12.1. Toxicity

Toxicity of product

This product is classified as very toxic to aquatic life with long lasting effects.

Toxicity of ingredients

PIPERONYL BUTOXIDE
Acute aquatic toxicity
$LE(C)_{50}$ 0.1 < L(E)C50 ≤ 1
M factor (Acute) 1
Chronic aquatic toxicity
M factor (Chronic) 1

TETRAMETHRIN
Acute aquatic toxicity
$LE(C)_{50}$ 0.1 < L(E)C50 ≤ 1
M factor (Acute) 1
Acute toxicity - fish LC50, 96 hours: 0.033 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates
EC_{50}, 48 hours: 0.47 mg/l, Daphnia magna
Acute toxicity - aquatic plants
IC_{50}, 72 hours: 1.36 mg/l, Scenedesmus subspicatus
Chronic aquatic toxicity
NOEC 0.001 < NOEC ≤ 0.01
Degradability Non-rapidly degradable
M factor (Chronic) 10

PERMETHRIN
Acute aquatic toxicity
$LE(C)_{50}$ 0.001 < L(E)C50 ≤ 0.01
M factor (Acute) 100
Acute toxicity - fish LC50, 96 hours: 0.0089 mg/l, Poecilia reticulata (Guppy)
LC50, 96 hours: 0.145 mg/l, Cyprinus carpio (Common carp)
Acute toxicity - aquatic invertebrates
EC_{50}, 48 hours: 0.02 mg/l, Daphnia magna
Chronic aquatic toxicity
NOEC 0.00001 < NOEC ≤ 0.0001
Degradability Non-rapidly degradable
M factor (Chronic) 1000

12.2. Persistence and degradability

The product is expected to be biodegradable.

12.3. Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment
This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects
Information not available

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Disposal methods
Dispose of contents/container in accordance with all local, regional, national and international regulations.

SECTION 14: Transport information
14.1. UN number
UN1950

14.2. UN proper shipping name
AEROSOLS

14.3. Transport hazard class(es)
2.1

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
Tunnel restriction code (D)

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
This substance is classified and labelled in accordance with Regulation (EC) 1272/2008 and Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information
Abbreviations and acronyms
ATE: Acute Toxicity Estimate.
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Chemical Abstracts Service.

DNEL: Derived No Effect Level.
EC_{50}: 50% of maximal Effective Concentration.
IATA: International Air Transport Association.
ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
LC_{50}: Lethal Concentration to 50 % of a test population.
LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose).
NOEC: No Observed Effect Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
PNEC: Predicted No Effect Concentration.
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
UN: United Nations.
vPvB: Very Persistent and Very Bioaccumulative.

Acute Tox. = Acute toxicity
Aerosol = Aerosol
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Asp. Tox. = Aspiration hazard
Press. Gas (Comp.) = Gas under pressure: Compressed gas
Skin Sens. = Skin sensitisation
STOT SE = Specific target organ toxicity-single exposure

Full text of hazard statements listed in Section 3
H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated.
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Comments
Use only in accordance with label instructions.
The information contained in this data sheet does not constitute the user's own assessment of workplace risks as required by legislation. The information in this data sheet should be considered when undertaking a risk assessment under the COSHH regulations. 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 storage and transportation of the preparation. The information 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 STV International Ltd 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.