SAFETY DATA SHEET

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

ZER968 – ZERO IN BED BUG & DUST MITE KILLER

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

1.1. Product identifier

Zero In Bed Bug & Dust Mite 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 International Ltd
Forge House
Little Cressingham
Watton
Thetford
Norfolk
IP25 6ND

+ 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

P102 Keep out of reach of children.
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. P260 Do not breathe spray.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Other labelling required under Regulation (EC) 1272/2008

EUH066 Repeated exposure may cause skin dryness or cracking.

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 [%]**
HYDROCARBONS, C12-C16,isoalkanes, cyclics, <2% aromatics	EC number: 927-676-8	Asp. Tox. 1 - H304	30-60
Butane	106-97-8 203-448-7	Flammable Gas 1; H220	10-30
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	EC number: 919-857-5	Flam. Liq. 3; H226 STOT SE 3; H336 Asp. Tox. 1; H304	10-30
Cyphenothrin	39515-40-7 254-484-5	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	<0.5

		M factor (Acute) = 1000 M factor (Chronic) = 1000	
Prallethrin	23031-36-9 245-387-9	Acute Tox. 4; H302 Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M factor (Acute) = 100 M factor (Chronic) = 100	<0.5

Full text of hazard statements is displayed in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Skin

Wash skin thoroughly with soap and water.

Eyes

Rinse immediately with plenty of water. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation - Vapours may cause drowsiness and dizziness.
Ingestion - Nausea, vomiting.
Skin contact - May cause skin irritation/eczema.
Eye contact - May cause temporary eye irritation.

4.3. Indication of any immediate medical attention and special treatment needed

No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Extinguish with carbon dioxide or dry powder.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting:
Containers close to fire should be removed or cooled with water.
Special protective equipment for firefighters:
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: For personal protection, see Section 8.

6.2. Environmental precautions

Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Avoid contamination of ponds or watercourses with washing down water. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Eliminate all sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities

Do not store near heat sources or expose to high temperatures. Protect from sunlight.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

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)

8.2. Exposure controls

Engineering controls
Provide adequate ventilation.
Eye/face protection
Wear tight-fitting, chemical splash goggles or face shield.
Hand protection
It is recommended that gloves are made of the following material: Rubber (natural, latex).

Other skin and body protection
Wear protective clothing.

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties
Appearance: Clear 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: 0°C OC (Open cup).
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): Insoluble in water.
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: Aerosol. May explode when heated or when exposed to flames or sparks.
Oxidising properties: Does not meet the criteria for classification as oxidising.

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
Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions
No information required.

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

10.5. Incompatible materials
Acids - oxidising.

10.6. Hazardous decomposition products
Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information
11.1. Information on toxicological effects
Inhalation: Vapours in high concentrations are narcotic.
Ingestion: Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.
Eye contact: May cause temporary eye irritation.

Toxicological information on ingredients
Cyphenothrin
Acute toxicity - oral Acute toxicity oral (LD_{50} mg/kg) 318.0 Species Rat ATE oral (mg/kg) 318.0
Acute toxicity - dermal Notes (dermal LD_{50}) LD_{50} > 2000 mg/kg, Dermal, Rat Based on available data the classification criteria are not met.
Acute toxicity - inhalation Notes (inhalation LC_{50}) LD_{50} >1.85 mg/l, Inhalation, Rat Based on available data the classification criteria are not met.
Skin corrosion/irritation Animal data Not irritating.
Serious eye damage/irritation Not irritating. Skin sensitisation
Skin sensitisation Not sensitising.
Germ cell mutagenicity Genotoxicity - in vivo This substance has no evidence of mutagenic properties.
Carcinogenicity There is no evidence that the product can cause cancer.
Reproductive toxicity fertility This substance has no evidence of toxicity to reproduction.

Prallethrin
Acute toxicity – oral Acute toxicity oral (LD_{50} mg/kg) 417.0 Species Rat
Acute toxicity - dermal Notes (dermal LD_{50}) Based on available data the classification criteria are not met. LD_{50} >5000 mg/kg, Dermal, Rat
Acute toxicity inhalation (LC_{50} dust/mist mg/l) 0.658 Species Rat
Skin corrosion/irritation Animal data Not irritating.
Serious eye damage/irritation Slightly irritating.
Respiratory sensitisation Based on available data the classification criteria are not met. Not determined. Skin sensitisation Not sensitising.
Germ cell mutagenicity Genotoxicity - in vitro Negative. Genotoxicity - in vivo This substance has no evidence of mutagenic properties.
Carcinogenicity There is no evidence that the product can cause cancer.
Reproductive toxicity fertility This substance has no evidence of toxicity to reproduction.
Aspiration hazard Based on available data the classification criteria are not met.
Inhalation Toxic by inhalation.
Ingestion Harmful if swallowed.
Skin contact Not a skin sensitiser. No specific health hazards known.
Eye contact May cause eye irritation.

SECTION 12: Ecological information
12.1. Toxicity
Ecotoxicity
The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Ecological information on ingredients
Cyphenothrin
Acute aquatic toxicity
$LE(C)_{50}$ 0.0001 < L(E)C50 ≤ 0.001

M factor (Acute) 1000
Acute toxicity - fish LC_{50}, 96 hours: 0.34 x 10-3 mg/l, Algae
Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 0.43 x 10-3 mg/l, Daphnia magna
Acute toxicity - aquatic plants IC_{50}, 72 hours: >0.014 mg/l, Fish
Chronic aquatic toxicity
M factor (Chronic) 1000

Prallethrin
Ecotoxicity Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity
$LE(C)_{50}$ 0.001 < L(E)C50 ≤ 0.01
M factor (Acute) 100
Acute toxicity - fish LC50, 96 hours: 0.012 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates EC_{50}, 48 hours: 0.0062 mg/l, Daphnia magna
Acute toxicity - aquatic plants IC_{50}, 72 hours: 4.5 mg/l, Pseudokirchneriella subcapitata
Chronic aquatic toxicity
NOEC 0.0001 < NOEC ≤ 0.001
Degradability Non-rapidly degradable
M factor (Chronic) 100

12.2. Persistence and degradability
There are no data on the degradability of this product.

Cyphenothrin
The product is not readily biodegradable.

Prallethrin
The product is not biodegradable. Photodegradable.

12.3. Bioaccumulative potential
No data available on bioaccumulation.

Cyphenothrin
Bioaccumulative potential: The product is not bioaccumulating.
Partition coefficient : 5.79 - 6.09

Prallethrin
Partition coefficient 4.49

12.4. Mobility in soil
Unknown
Cyphenothrin
Readily absorbed into the soil.
Prallethrin
Readily absorbed into the soil. Not considered mobile.

12.5. Results of PBT and vPvB assessment
This substance is not classified as PBT or vPvB according to current EU criteria.

Cyphenothrin
This substance is not classified as PBT or vPvB according to current EU criteria.

Prallethrin
This substance is not classified as PBT or vPvB according to current EU criteria.

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.
H304 May be fatal if swallowed and enters airways.
H331 Toxic if inhaled. H336 May cause drowsiness or dizziness.
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.