



SAFETY DATA SHEET

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

ZER027 – ZERO IN NATURAL INSECT KILLER FLEA BOMB

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

1.1. Product identifier

Zero In Natural Insect Killer Flea Bomb
HSE 10396

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

Skin Irrit. 2; H315
STOT SE 3; H336
Aquatic Chronic 2; H411

2.2. Label elements

Hazard Pictogram

GHS02, GHS07, GHS09



Signal Word

Danger

Hazard Statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 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
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.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/ container in accordance with national regulations.

Other labelling required under Regulation (EC) 1272/2008

Contains HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLIC

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 [%]
HYDROCARBON PROPELLANT 60-100%	68476-85-7 270-704-2	Flam. Gas 1 - H220 Press. Gas (Liq.) - H280	30-60
HYDROCARBONS, C7, n- ALKANES, ISOALKANES, CYCLIC	142-82-5 927-510-4	Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336	10-30

		Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	
HYDROCARBONS, C11-14, n-ALKANES, ISOALKANES, CYCLICS <2% AROMATICS	EC number: 926-141-6	Asp. Tox. 1 - H304	5-10
Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics	90622-57-4 923-037-2	Flam. Liq. 3 - H226 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411	5-10
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
N-methyl-N-oleoylglycerine	110-25-8 203-749-3	Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Acute 1 - H400	<1
Pyrethrins	8003-34-7 232-319-8	Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 M factor (Acute) = 1 M factor (Chronic) = 1	<1

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.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eyes

Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any discomfort continues.

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

Inhalation - Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion - May cause discomfort if swallowed.

Skin contact - Causes skin irritation. Prolonged contact may cause dryness of the skin.

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 alcohol-resistant foam, 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

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 (NO_x).

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. Avoid contact with contaminated tools and objects. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. Wash thoroughly after dealing with a spillage.

6.2. Environmental precautions

Do not discharge into drains or watercourses or onto the ground. Toxic to aquatic life with long lasting effects. 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. Wipe up with an absorbent cloth and dispose of waste safely. Absorb small quantities with paper towels and evaporate in a safe place. Once evaporation is complete, place paper in a suitable waste disposal container and seal securely. Absorb spillage with non-combustible, absorbent material. Absorb spillage with inert, damp, non-combustible material. 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

HYDROCARBON PROPELLANT

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³

Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLIC

Long-term exposure limit (8-hour TWA): WEL 500 ppm 2085 mg/m³

HYDROCARBONS, C11-14, n-ALKANES, ISOALKANES, CYCLICS <2% AROMATICS

Long-term exposure limit (8-hour TWA): WEL 1000 mg/m³

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Long-term exposure limit (8-hour TWA): WEL 1200 mg/m³ vapour

WEL = Workplace Exposure Limit

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLIC (CAS: 142-82-5)

DNEL

Industry - Dermal; Long term : 300 mg/kg/day

Industry - Inhalation; Long term : 2085 mg/m³

Consumer - Dermal; Long term : 149 mg/kg/day

Consumer - Inhalation; Long term : 447 mg/m³

N-methyl-N-oleoylglycerine (CAS: 110-25-8)

DNEL

General population - Oral; Short term systemic effects: 92 mg/kg/day

General population - Oral; Long term systemic effects: 5 mg/kg/day

General population - Dermal; Short term systemic effects: 50 mg/kg/day

Workers - Dermal; Short term systemic effects: 100 mg/kg/day

General population - Dermal; Long term systemic effects: 5 mg/kg/day

Workers - Dermal; Long term systemic effects: 10 mg/kg/day

General population - Inhalation; Short term systemic effects: 9 mg/m³
Workers - Inhalation; Short term systemic effects: 18 mg/m³
Workers - Inhalation; Long term systemic effects: 0.2 mg/m³
General population - Inhalation; Short term local effects: 9 mg/m³
Workers - Inhalation; Short term local effects: 18 mg/m³
General population - Inhalation; Long term local effects: 0.005 mg/m³
Workers - Inhalation; Long term local effects: 0.01 mg/m³
General population - Inhalation; Long term systemic effects: 0.1 mg/m³

PNEC

- Marine water; 0.000043 mg/l
- Fresh water; 0.00043 mg/l
- water; Intermittent release 0.0043 mg/l

8.2. Exposure controls

Engineering controls

Provide adequate ventilation.

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

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. The selected gloves should have a breakthrough time of at least 4 hours. To protect hands from chemicals, gloves should comply with European Standard EN374. The breakthrough time for any glove material may be different for different glove manufacturers. When used with mixtures, the protection time of gloves cannot be accurately estimated. For exposure up to 4 hours, wear gloves made of the following material: Nitrile rubber. Rubber (natural, latex). Neoprene. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Respiratory protection

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.

Hygiene measures

Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: White/off-white aerosol

Odour: Mild

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: Information not available

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): Soluble 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: 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

Stable at normal ambient temperatures and when used as recommended.

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 (NO_x).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicity of product

Acute toxicity:	Not expected to be toxic.
Skin corrosion/irritation:	Ingestion may cause discomfort. Causes skin irritation. Prolonged contact may cause dryness of the skin.
Serious eye damage/irritation:	Product is not classified as causing serious eye damage or irritation. Eye contact may cause discomfort
Respiratory or skin sensitisation:	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

HYDROCARBON PROPELLANT

Acute toxicity - inhalation
Acute toxicity inhalation
(LC₅₀ vapours mg/l)
21.6
Species Rat
ATE inhalation (vapours mg/l)
21.6

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLIC

Acute toxicity - oral
Acute toxicity oral
(LD₅₀ mg/kg)
5,840.0
Species Rat
ATE oral (mg/kg) 5,840.0

Acute toxicity - dermal
Acute toxicity dermal
(LD₅₀ mg/kg)
2,920.0
Species Rat
ATE dermal (mg/kg)
2,920.0

Acute toxicity - inhalation
Acute toxicity inhalation
(LC₅₀ vapours mg/l)
23.3
Species Rat
ATE inhalation (vapours mg/l)
23.3

HYDROCARBONS, C11-14, n-ALKANES, ISOALKANES, CYCLICS <2% AROMATICS

Acute toxicity - oral
Acute toxicity oral

(LD₅₀ mg/kg)
5,000.0
Species Rat
ATE oral (mg/kg)
5,000.0

Acute toxicity - dermal
Acute toxicity dermal
(LD₅₀ mg/kg)
5,000.0
Species Rabbit
ATE dermal (mg/kg)
5,000.0

Acute toxicity - inhalation
Acute toxicity inhalation
(LC₅₀ vapours mg/l)
5,001.0
Species Rat
ATE inhalation (vapours mg/l)
5,001.0

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Acute toxicity - oral
Acute toxicity oral
(LD₅₀ mg/kg)
5,000.1
Species Rat
ATE oral (mg/kg)
5,000.1

Acute toxicity - dermal
Acute toxicity dermal
(LD₅₀ mg/kg)
5,000.1
Species Rat
ATE dermal (mg/kg)
5,000.1

Acute toxicity - inhalation
Acute toxicity inhalation
(LC₅₀ dust/mist mg/l)
5.1
Species Rat
ATE inhalation (dusts/mists mg/l)
5.1

Pyrethrins
Acute toxicity - oral
ATE oral (mg/kg)
500.0

Acute toxicity - dermal
ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation
ATE inhalation (dusts/mists mg/l)
1.5

SECTION 12: Ecological information

12.1. Toxicity

Toxicity of product

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

Toxicity of ingredients

HYDROCARBONS, C7, n-ALKANES, ISOALKANES, CYCLIC

Acute aquatic toxicity

Acute toxicity - fish

LC50, 96 hours: > 13.4 mg/l, Oncorhynchus mykiss (Rainbow trout)

LC₅₀, 96 hours: <10 mg/l, Fish Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: 3 mg/l, Daphnia magna

EC₅₀, 48 hours: <10 mg/l, Daphnia magna

Acute toxicity - aquatic plants

IC₅₀, 72 hours: <10 mg/l, Algae

Chronic aquatic toxicity

Chronic toxicity - fish early life stage

NOEC, 28 days: 1.53 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: 1 mg/l, Daphnia magna

HYDROCARBONS, C11-14, n-ALKANES, ISOALKANES, CYCLICS <2% AROMATICS

Acute aquatic toxicity

Acute toxicity - fish

LC50, 96 hours: > 1000 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates

EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna

EC₅₀, 48 hours: >250ppm mg/l, Daphnia magna

Acute toxicity - aquatic plants

IC₅₀, 72 hours: 20ppm mg/l, Algae

Hydrocarbons, C10-C12, isoalkanes, < 2% aromatics

Acute aquatic toxicity

Acute toxicity - fish

96 hours: 1000 mg/kg, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates

48 hours: 1000 mg/l, Daphnia magna

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates

21 days: <1 mg/l, Daphnia magna

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

Pyrethrins

Acute aquatic toxicity
LE(C)₅₀ 0.1 < L(E)C50 ≤ 1
M factor (Acute) 1

Chronic aquatic toxicity
M factor (Chronic) 1

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

The product is soluble in water

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

Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

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.

EC₅₀: 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.

LC₅₀: Lethal Concentration to 50 % of a test population.

LD₅₀: 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.

Full text of hazard statements listed in Section 3

H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H229 Pressurised container: may burst if heated.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H336 May cause drowsiness or dizziness.

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.

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.