SAFETY DATA SHEET

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

ZER883 – ZERO IN 90-DAY KNOCKDOWN FLYING INSECT KILLER

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

1.1. Product identifier

ZER883 – Zero In 90-Day Knockdown Flying Insect Killer

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

For use as an insecticide

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.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) 1272/2008
Eye Irrit. 2; H319
Skin Irrit. 2; H315
Skin Sens. 1; H317
Aquatic Acute 1; H400

Aquatic Chronic 1; H410

2.2. Label elements

Hazard Pictogram
GHS07, GHS09

Signal Word
Warning

Hazard Statements
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
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

Other labelling required under Regulation (EC) 1272/2008
Contains geraniol.

2.3. Other hazards
This mixture does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients
3.2. Mixtures

Chemical Name	**CAS/EC No**	**Classification in accordance with Regulation (EC) 1272/2008**	**Conc [%]**
Dipropylene Glycol Methyl Ether	34590-94-8 252-104-2	Not classified	50- <100
Transfluthrin	118712-89-3 405-060-5	Skin Irrit. 2; H315 Aquatic Acute 1; H400 M Factor = 1000 Aquatic Chronic 1; H410 M Factor = 1000	10- <20
Propan-2-ol	67-63-0 200-661-7	Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336	1-<5
Geraniol	106-24-1 203-377-1	Aquatic Chronic 4; H413 Eye Dam. 1; H318 Skin Irrit. 2; H315 Skin Sens. 1; H317	1-<5

Full text of hazard statements is displayed in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

This product is not classified as hazardous through inhalation,however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

Skin

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

Eyes

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

Ingestion

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Product is non-flammable under normal conditions of storage, manipulation and use, containing flammable substances. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media

IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

5.2. Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3. Advice for firefighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.2. Environmental precautions

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

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 disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.
Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.
Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.
Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal See sections 8 and 13.

7.2. Conditions for safe storage, including any incompatibilities

Maximum time: 36 Months
Minimum Temp: 5 ºC
Maximum Temp.: 30 ºC
Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3. Specific end use(s)

For use as an insecticide.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Substances whose occupational exposure limits have to be monitored in the work environment

Identification		Environmental limits	
Dipropylene Glycol Methyl Ether	IOELV (8h)	50 ppm	308 mg/m³
CAS: 34590-94-8	IOELV (STEL)		
EC: 252-104-2	Year	2015	

Nuisance dust: Inhalable dust 10 mg/m3 // Respirable dust 4 mg/m3

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dipropylene Glycol Methyl Ether	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 34590-94-8	Dermal	Non-applicable	Non-applicable	65 mg/kg	Non-applicable
EC: 252-104-2	Inhalation	Non-applicable	Non-applicable	310 mg/m³	Non-applicable
Propan-2-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 67-63-0	Dermal	Non-applicable	Non-applicable	888 mg/kg	Non-applicable
EC: 200-661-7	Inhalation	Non-applicable	Non-applicable	500 mg/m³	Non-applicable
Geraniol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 106-24-1	Dermal	Non-applicable	Non-applicable	8,3 mg/kg	Non-applicable
EC: 203-377-1	Inhalation	Non-applicable	Non-applicable	29,4 mg/m³	Non-applicable

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Dipropylene Glycol Methyl Ether	Oral	Non-applicable	Non-applicable	1,67 mg/kg	Non-applicable
CAS: 34590-94-8	Dermal	Non-applicable	Non-applicable	15 mg/kg	Non-applicable
EC: 252-104-2	Inhalation	Non-applicable	Non-applicable	37,2 mg/m³	Non-applicable
Propan-2-ol	Oral	Non-applicable	Non-applicable	26 mg/kg	Non-applicable
CAS: 67-63-0	Dermal	Non-applicable	Non-applicable	319 mg/kg	Non-applicable
EC: 200-661-7	Inhalation	Non-applicable	Non-applicable	89 mg/m³	Non-applicable
Geraniol	Oral	Non-applicable	Non-applicable	2,5 mg/kg	Non-applicable
CAS: 106-24-1	Dermal	Non-applicable	Non-applicable	5 mg/kg	Non-applicable
EC: 203-377-1	Inhalation	Non-applicable	Non-applicable	8,7 mg/m³	Non-applicable

PNEC:

Identification				
Dipropylene Glycol Methyl Ether	STP	4168 mg/L	Fresh water	19 mg/L
CAS: 34590-94-8	Soil	2,74 mg/kg	Marine water	1,9 mg/L
EC: 252-104-2	Intermittent	190 mg/L	Sediment (Fresh water)	70,2 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	7,02 mg/kg
Propan-2-ol	STP	2251 mg/L	Fresh water	140,9 mg/L
CAS: 67-63-0	Soil	28 mg/kg	Marine water	140,9 mg/L
EC: 200-661-7	Intermittent	140,9 mg/L	Sediment (Fresh water)	552 mg/kg
	Oral	160 g/kg	Sediment (Marine water)	552 mg/kg
Geraniol	STP	0,7 mg/L	Fresh water	0,0108 mg/L
CAS: 106-24-1	Soil	0,0167 mg/kg	Marine water	0,00108 mg/L
EC: 203-377-1	Intermittent	0,108 mg/L	Sediment (Fresh water)	0,115 mg/kg
	Oral	Non-applicable	Sediment (Marine water)	0,0115 mg/kg

8.2. Exposure controls

Engineering controls

Ensure good ventilation.

Eye/face protection

Not necessary under normal conditions of use.

Hand protection

Not necessary under normal conditions of use.

Respiratory protection

Not necessary under normal conditions of use.

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: Substance: liquid. White plastic cassette.
Odour: Information not available
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 at 20 ºC: 320Pa
Vapour pressure at 50 ºC: 1720Pa (2kPa)
Density at 20 ºC: 983 kg/m^3
Relative density at 20 ºC: 0.983
Solubility(ies): Information not available
Partition coefficient: n-octanol/water: Information not available
Auto-ignition temperature: 270 ºC
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

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2. Chemical stability

Chemically stable under the conditions of storage, handling and use.

10.3. Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4. Conditions to avoid

Avoid direct sunlight and extremes of temperature.

10.5. Incompatible materials

Avoid strong acids, alkalis and bases.

10.6. Hazardous decomposition products

Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO2), carbon monoxide and other organic compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicity of product

The experimental information related to the toxicological properties of the product itself is not available. Contains glycols. With possibility of effects that are hazardous to the health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications:
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

Ingestion (acute effect)

- Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

Inhalation (acute effect)

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Contact with the skin and the eyes (acute effect)

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces eye damage after contact.

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Sensitizing effects

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation. For more information see section 3.

Specific target organ toxicity (STOT)-repeated exposure

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Aspiration hazard
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Toxicity of ingredients

Identification	Acute toxicity		Genus
Transfluthrin (ISO)	LD50 oral	>2000 mg/kg	
CAS: 118712-89-3	LD50 dermal	>2000 mg/kg	
EC: 405-060-5	LC50 inhalation	>20 mg/L (4 h)	
Dipropylene Glycol Methyl Ether	LD50 oral	>2000 mg/kg	
CAS: 34590-94-8	LD50 dermal	>2000 mg/kg	
EC: 252-104-2	LC50 inhalation	>20 mg/L (4 h)	
Propan-2-ol	LD50 oral	5280 mg/kg	Rat
CAS: 67-63-0	LD50 dermal	12800 mg/kg	Rat
EC: 200-661-7	LC50 inhalation	72,6 mg/L (4 h)	Rat
Geraniol	LD50 oral	4200 mg/kg	Rat
CAS: 106-24-1	LD50 dermal	5100 mg/kg	Rabbit
EC: 203-377-1	LC50 inhalation	>20 mg/L (4 h)	

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

Identification		Acute toxicity	Species	Genus
Dipropylene Glycol Methyl Ether	LC50	10000 mg/L (96 h)	Pimephales promelas	Fish
CAS: 34590-94-8	EC50	1919 mg/L (48 h)	Daphnia magna	Crustacean
EC: 252-104-2	EC50	Non-applicable		
Transfluthrin (ISO)	LC50	0.0007 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 118712-89-3	EC50	0.0017 mg/L (48 h)	Daphnia magna	Crustacean
EC: 405-060-5	EC50	Non-applicable		
Propan-2-ol	LC50	9640 mg/L (96 h)	Pimephales promelas	Fish
CAS: 67-63-0	EC50	13299 mg/L (48 h)	Daphnia magna	Crustacean
EC: 200-661-7	EC50	1000 mg/L (72 h)	Scenedesmus subspicatus	Algae

12.2. Persistence and degradability

Identification	Degradability		Biodegradability	
Dipropylene Glycol Methyl Ether	BOD5	Non-applicable	Concentration	Non-applicable
CAS: 34590-94-8	COD	0.00202 g O2/g	Period	28 days
EC: 252-104-2	BOD5/COD	Non-applicable	% Biodegradable	73 %
Propan-2-ol	BOD5	1.19 g O2/g	Concentration	100 mg/L
CAS: 67-63-0	COD	2.23 g O2/g	Period	14 days
EC: 200-661-7	BOD5/COD	0.53	% Biodegradable	86 %
Geraniol	BOD5	Non-applicable	Concentration	100 mg/L
CAS: 106-24-1	COD	Non-applicable	Period	21 days
EC: 203-377-1	BOD5/COD	Non-applicable	% Biodegradable	70 %

12.3. Bioaccumulative potential

Identification	Bioaccumulation potential	
Dipropylene Glycol Methyl Ether	BCF	1
CAS: 34590-94-8	Pow Log	-0.06
EC: 252-104-2	Potential	Low
Propan-2-ol	BCF	3
CAS: 67-63-0	Pow Log	0.05
EC: 200-661-7	Potential	Low
Geraniol	BCF	110
CAS: 106-24-1	Pow Log	3.56
EC: 203-377-1	Potential	High

12.4. Mobility in soil

Identification	Absorption/desorption		Volatility	
Propan-2-ol	Koc	1.5	Henry	8,207E-1 Pa·m³/mol
CAS: 67-63-0	Conclusion	Very High	Dry soil	Yes
EC: 200-661-7	Surface tension	2,24E-2 N/m (25 ºC)	Moist soil	Yes

12.5. Results of PBT and vPvB assessment
Not applicable

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
3077

14.2. UN proper shipping name
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (TRANSFLUTHRIN)

14.3. Transport hazard class(es)
9

14.4. Packing group
III

14.5. Environmental hazards
Very toxic to aquatic life with long lasting effects.

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
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol–water partition coefficient
Koc: Partition coefficient of organic carbon

Full text of hazard statements listed in section 3

H315: Causes skin irritation
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
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.