

## Section 1 - Identification of The Material and Supplier

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**Chemical nature:** Blend of Transfluthrin and Permethrin in a suitable solvent system. Presented as an aerosol.

**Trade Name:** **Hovex Vaporgard Flying Insect Killer**

**Product Use:** Indoor flying insect killer aerosol

**This version issued:** **June, 2018** and is valid for 5 years from this date.

## Section 2 - Hazards Identification

### Statement of Hazardous Nature

This product is classified as: N, Dangerous to the environment. Not classified as hazardous according to the criteria of SWA.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

**Risk Phrases:** R52, R66, R67. Harmful to aquatic organisms. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

**Safety Phrases:** S24. Avoid contact with skin.

**SUSMP Classification:** None allocated.

**ADG Classification:** Class 2.1: Flammable gases.

**UN Number:** 1950, AEROSOLS



### GHS Signal word: DANGER

#### HAZARD STATEMENT:

- H223: Flammable material.
- H280: Contains gas under pressure; may explode if heated.
- AUH066: Repeated exposure may cause skin dryness or cracking.
- H336: May cause drowsiness or dizziness.
- H402: Harmful to aquatic life.

#### PREVENTION

- P102: Keep out of reach of children.
- P210: Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
- P211: Do not spray on an open flame or other ignition source.
- P251: Pressurized container: Do not pierce or burn, even after use.
- P261: Avoid breathing fumes, mists, vapours or spray.
- P271: Use only outdoors or in a well ventilated area.
- P281: Use personal protective equipment as required.

#### RESPONSE

- P312: Call a POISON CENTRE or doctor if you feel unwell.
- P352: Wash with plenty of soap and water.
- P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P332+P313: If skin irritation occurs: Get medical advice.
- P337+P313: If eye irritation persists: Get medical advice.
- P372: Explosion risk in case of fire.
- P391: Collect spillage.
- P370+P378: In case of fire, use carbon dioxide, dry chemical, foam, water fog, dry sand. Water fog or fine spray is the preferred medium for large fires.

#### STORAGE

- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50°C.

## SAFETY DATA SHEET

**DISPOSAL**

P501: Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

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**Emergency Overview**

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**Physical Description & Colour:** Clear colourless liquid.

**Odour:** Mild hydrocarbon solvent odour.

**Major Health Hazards:** Transfluthrin is of low acute and dermal toxicity and is classified as unlikely to present acute toxicity in normal use. It is not a skin or eye irritant, nor a skin sensitizer.

Repeated exposure may cause skin dryness or cracking, vapours may cause drowsiness and dizziness.

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**Potential Health Effects**

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**Inhalation:**

**Short Term Exposure:** High vapour pressures may cause drowsiness and dizziness. In addition product is unlikely to cause any discomfort or irritation. Intentional misuse by deliberately concentrating and inhaling contents of aerosol containers can be harmful or fatal.

**Long Term Exposure:** Vapours may cause drowsiness and dizziness.

**Skin Contact:**

**Short Term Exposure:** Major health effect from this product is misuse of the aerosol function. If sprayed continuously on skin or in eyes, it can cause frostbite.

**Long Term Exposure:** Repeated exposure may cause skin dryness or cracking.

**Eye Contact:**

**Short Term Exposure:** If sprayed directly in the eye, this product will irritate. If spraying is prolonged, it may cause damage through frostbite.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

**Ingestion:**

**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

**Carcinogen Status:**

**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** Permethrin is Class 3 - unclassifiable as to carcinogenicity to humans.

See the IARC website for further details. A web address has not been provided as addresses frequently change.

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**Section 3 - Composition/Information on Ingredients**

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Ingredients	CAS No	Conc,%	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
Transfluthrin	118712-89-3	1g/kg	not set	not set
Permethrin	52645-53-1	1g/kg	not set	not set
Other non hazardous ingredients	secret	approx 40	not set	not set
hydrocarbon propellant	106-97-8 / 74-98-6	approx 60	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

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**Section 4 - First Aid Measures**

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**General Information:**

You should call The **Poisons Information Centre** if you feel that you may have been poisoned, burned or irritated by this product. The number is **13 11 26 from anywhere in Australia (0800 764 766 in New Zealand)** and is available at all times. Have this SDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**SAFETY DATA SHEET**

**Skin Contact:** Gently blot away excess liquid. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 5 minutes or until chemical is removed.

**Eye Contact:** Quickly and gently blot material from eyes. No effects expected. If irritation does occur, flush contaminated eye(s) with lukewarm, gently flowing water for 5 minutes or until the product is removed. Obtain medical advice if irritation becomes painful or lasts more than a few minutes. Take special care if exposed person is wearing contact lenses.

**Ingestion:** If product is swallowed or gets in mouth, do NOT induce vomiting; wash mouth with water and give some water to drink. If symptoms develop, or if in doubt contact a Poisons Information Centre or a doctor.

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## Section 5 - Fire Fighting Measures

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**Fire and Explosion Hazards:** The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. This product is classified as flammable. There is a moderate risk of an explosion from this product if commercial quantities are involved in a fire. Firefighters should take care and appropriate precautions. Violent steam generation or eruption may occur upon application of direct water stream on hot liquids.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** In case of fire, use carbon dioxide, dry chemical, foam, water fog, dry sand. Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is a danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is full fire kit and breathing apparatus.

**Flash point:** 58°C

**Upper Flammability Limit:** Not available

**Lower Flammability Limit:** Not available

**Autoignition temperature:** 365°C

**Flammability Class:** Flammable

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## Section 6 - Accidental Release Measures

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**Accidental release:** This product is sold in small packages, and the accidental release from one of these is not usually a cause for concern. For minor spills, clean up, rinsing to sewer and put empty container in garbage. Although no special protective clothing is normally necessary because of occasional minor contact with this product, it is good practice to wear impermeable gloves when handling chemical products. In the event of a major spill, prevent spillage from entering drains or water courses and call emergency services.

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## Section 7 - Handling and Storage

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**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** Store in a cool, well ventilated area, and make sure that surrounding electrical devices and switches are suitable. Check containers and valves periodically for leaks. If you keep more than 25kg of flammable gases, you are probably required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

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## Section 8 - Exposure Controls and Personal Protection

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The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

### SWA Exposure Limits

### TWA (mg/m<sup>3</sup>)

### STEL (mg/m<sup>3</sup>)

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

The ADI for Transfluthrin is set at 0.003mg/kg/day. The corresponding NOEL is set at 0.25mg/kg/day. ADI means Acceptable Daily Intake; NOEL means No-observable-effect-level. Data from Australian ADI List, Dec 2012.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that vapours and mists are minimised.

## SAFETY DATA SHEET

**Eye Protection:** Eye protection such as protective glasses or goggles is recommended when product is being used.

**Skin Protection:** You should avoid contact even with mild skin irritants. Therefore you should wear suitable impervious elbow-length gloves and facial protection when handling this product. See below for suitable types.

**Protective Material Types:** There is no specific recommendation for any particular protective material type.

**Respirator:** Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above.

Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

### Section 9 - Physical and Chemical Properties:

<b>Physical Description &amp; colour:</b>	Clear colourless liquid.
<b>Odour:</b>	Mild hydrocarbon solvent odour.
<b>Boiling Point:</b>	182-192°C at 100kPa (solvent)
<b>Freezing/Melting Point:</b>	No specific data. Liquid at normal temperatures.
<b>Volatiles:</b>	No specific data. Expected to be low at 100°C.
<b>Vapour Pressure:</b>	<0.106kPa at 20°C
<b>Vapour Density:</b>	Approx 5.4
<b>Specific Gravity:</b>	0.75
<b>Water Solubility:</b>	Insoluble.
<b>pH:</b>	No data.
<b>Volatility:</b>	No data.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	7.5 (nButAc=100)
<b>Coeff Oil/water Distribution:</b>	No data
<b>Autoignition temp:</b>	365°C

### Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry. Keep away from sources of sparks or ignition.

**Incompatibilities:** strong acids, strong bases, strong oxidising agents.

**Fire Decomposition:** Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

**Polymerisation:** This product will not undergo polymerisation reactions.

### Section 11 - Toxicological Information

**Toxicity:** Transfluthrin is of low acute toxicity in the rat, with an LD50 of >5000 mg/kg bw via each route of administration and with an acute and dermal NOEL of 100 mg/kg bw/d. The 4 h LC50 was >513 mg/m<sup>3</sup> air for male and female rats. The only sign noted during the 14 d observation period was a slight tremor in females for 5 minutes after dosing. Transfluthrin is not a skin or eye irritant, nor a skin sensitizer.

Transfluthrin was not mutagenic in vitro in bacteria, yeast or mammalian cells with or without metabolic activation, neither was there any evidence of mutagenicity from in vivo tests on rats and mice.

In a dietary multi-generation reproductive toxicity study in the rat, there was no evidence of teratogenicity, foetotoxicity or reproductive toxicity in rats administered Transfluthrin at doses up to 191 mg/kg bw/d.

There is no data to hand indicating any particular target organs.

Permethrin (present in this product at 0.5g/kg) is classed by SWA as a potential sensitiser by skin contact.

### Classification of Hazardous Ingredients

Ingredient	Risk Phrases
No ingredient mentioned in the HSIS Database is present in this product at hazardous concentrations.	

### Section 12 - Ecological Information

This product is harmful to aquatic organisms. This product is biodegradable. It will not accumulate in the soil or water or cause long term problems.

Environmental toxicity tests showed that Transfluthrin is of low toxicity to algae, earthworms and birds but is highly toxic to fish and daphnia.

## SAFETY DATA SHEET

**Environmental fate:**

Tests of hydrolysis for Transfluthrin at 25°C for 36 d gave a half-life of 14 d at pH 9 and >1 year at pH 7 and 5. Under the test conditions Transfluthrin did not readily hydrolyse and, considering the very low water solubility and strong adsorption characteristics of the compound, hydrolysis is expected to play a minor role in the degradation of Transfluthrin in the environment.

Transfluthrin underwent photolysis when irradiated with light of wavelengths > 290 nm with an extrapolated half-life of 17 h. A calculation to determine the rate of degradation of Transfluthrin in air estimated the half-life to be 4.1 d.

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**Section 13 - Disposal Considerations**

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**Disposal:** Dispose of small quantities and empty containers by wrapping with paper and putting in garbage. For larger quantities, if recycling or reclaiming is not possible, use a commercial waste disposal service.

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**Section 14 - Transport Information**

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**ADG Code:** 1950, AEROSOLS

**Hazchem Code:** 2YE

**Special Provisions:** 63, 190, 277

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 1000mL for this class of product.

**Dangerous Goods Class:** Class 2.1: Flammable gases.

**Packaging Group:** Not set

**Packaging Method:** P003

Class 2.1 Flammable gases shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 3 (Flammable Liquids) (where both flammable liquids and flammable gases are in bulk), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), and 7 (Radioactive Substances). They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.2 (Non-flammable Non-Toxic gases), 3 (Flammable liquids except where both flammable liquids and flammable gases are in bulk), 6 (Toxic Substances), 8 (Corrosive Substances) 9 (Miscellaneous dangerous goods), Foodstuffs and foodstuff empties.

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**Section 15 - Regulatory Information**

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**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations.

The following ingredients: Transfluthrin, Permethrin, are mentioned in the SUSMP.

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**Section 16 - Other Information**

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**This SDS contains only safety-related information. For other data see product literature.**

**Acronyms:**

<b>ADG Code</b>	Australian Code for the Transport of Dangerous Goods by Road and Rail (7 <sup>th</sup> edition)
<b>AICS</b>	Australian Inventory of Chemical Substances
<b>SWA</b>	Safe Work Australia, formerly ASCC and NOHSC
<b>CAS number</b>	Chemical Abstracts Service Registry Number
<b>Hazchem Code</b>	Emergency action code of numbers and letters that provide information to emergency services especially firefighters
<b>IARC</b>	International Agency for Research on Cancer
<b>NTP</b>	National Toxicology Program (USA)
<b>SUSMP</b>	Standard for the Uniform Scheduling of Medicines & Poisons
<b>UN Number</b>	United Nations Number

THIS SDS SUMMARISES OUR BEST KNOWLEDGE OF THE HEALTH AND SAFETY HAZARD STATEMENT: INFORMATION OF THE PRODUCT AND HOW TO SAFELY HANDLE AND USE THE PRODUCT IN THE WORKPLACE. EACH USER MUST REVIEW THIS SDS IN THE CONTEXT OF HOW THE PRODUCT WILL BE HANDLED AND USED IN THE WORKPLACE.

IF CLARIFICATION OR FURTHER INFORMATION IS NEEDED TO ENSURE THAT AN APPROPRIATE RISK ASSESSMENT CAN BE MADE, THE USER SHOULD CONTACT THIS COMPANY SO WE CAN ATTEMPT TO OBTAIN ADDITIONAL INFORMATION FROM OUR SUPPLIERS. OUR RESPONSIBILITY FOR PRODUCTS SOLD IS SUBJECT TO OUR STANDARD TERMS AND CONDITIONS, A COPY OF WHICH IS SENT TO OUR CUSTOMERS AND IS ALSO AVAILABLE ON REQUEST.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document "Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice" (December 2011)  
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**SAFETY DATA SHEET**