

SAFETY INFORMATION SHEET

Date of Issue: February 2004
Revision: March 2020

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1 Product Identifier: NIPPON FLY KILLER SPRAY
1.2 Relevant uses of the substance or mixture and uses advised against:
 Insecticide
1.3 Manufacturer/Distributor: Vitax Limited, Owen Street, Coalville LE67 3DE
 Tel: 01530 510060 Email: info@vitax.co.uk
1.4 Emergency Contact: Tel: 01530 510060 (Office Hours)

2. HAZARDS IDENTIFICATION

2.1 Classification: **Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)**
Physical hazards Aerosol 1 - H222, H229
Health hazards Elicitation - EUH208
Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2 Label Elements: Contains 0.03% Permethrin (EC 258-067-9), 0.15% Tetramethrin (EC 231-711-6)



Signal word: Danger
Hazard statements: H229 Pressurised container: may burst if heated.
 H410 Very toxic to aquatic life with long lasting effects.
 H222 Extremely flammable aerosol.
Precautionary Statements 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.
 P102 Keep out of reach of children.
 P271 Use only outdoors or in a well-ventilated area.
 P501 Dispose of contents/container in accordance with local regulations.
 EUH208 Contains PERMETHRIN. May produce an allergic reaction.

2.3 Other Hazards:

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Chemical Name	CAS-No./ EINECS-No.	Annex Index or REACH number	Symbol(s) and Phrases	Precautionary Statements:	Concentration [%]
Odourless Kerosene	926-141-6	01-2119456620-43	Asp. Tox. 1 - H304		7.5%
Butane	106-97-8 203-448-7	Exempt under REACH	Flam. Gas 1 - H220 Press. Gas		10-30%
Isobutane	75-28-5 200-857-2	Exempt under REACH	Flam. Gas 1 - H220 Press. Gas		
Propane	74-98-6 200-827-9	Exempt under REACH	Flam. Gas 1 - H220 Press. Gas		10-30%
Permethrin	52645-53-1 258-067-9	N/A	Acute Tox. 4 - H302, H332 Skin Sens. 1 - H317 Aquatic Acute 1 - H400, H110 M factor (Acute) = 1000 M factor (Chronic) = 1000		0.03%
Tetramethrin	7696-12-0 231-711-6	N/A	Acute tox. 4; H302 Carc. 2; H351 STOT SE2; H371 Aquatic Acute 1; H400 Aquatic Chronic 1; H410		0.15%



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Piperonyl butoxide	51-03-6 / 200-076-7	01-211953743	Acute Tox. 4 - H302, H332 STOT SE 3 - H335 Aquatic Acute 1 - H400, H110	<1%
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4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General information

Move affected person to fresh air at once.

Eye contact –

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

Skin contact –

Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately. Remove contaminated clothing immediately and wash skin with soap and water.

Inhalation –

If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Not available

4.3 Indication of immediate medical attention and special treatment needed:

Not available. Additional medical guidance is available to doctors from the National Poisons Information Service.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media:

Extinguish with foam, carbon dioxide, dry powder or water fog.

5.2 Special hazards arising from substance or mixture:

Containers can burst violently or explode when heated, due to excessive pressure build-up. Extremely flammable. Forms explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Containers can burst violently or explode when heated, due to excessive pressure build-up.

5.3 Advice for firefighters:

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours. Warn firefighters that aerosols are involved.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions:

Provide adequate ventilation. Use suitable respiratory protection if ventilation is inadequate. Avoid inhalation of vapours.

6.2 Environmental precautions:

Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material.

6.3 Methods and material for containment and cleaning up:

Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Leave small quantities to evaporate, if safe to do so. Do not allow material to enter confined spaces, due to the risk of explosion.

7. HANDLING & STORAGE

7.1 Precautions for Safe Handling:

Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Do not spray on a naked flame or any incandescent material.

7.2 Conditions for Safe Storage:

Keep away from heat, sparks and open flame. Store at moderate temperatures in dry, well ventilated area. Extremely flammable. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. **Storage class:** Flammable compressed gas storage.

7.3 Specific end use:

Insecticide.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters:

Odourless Kerosene
BUTANE

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

Long-term exposure limit (8-hour TWA): WEL 600 ppm

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ISOBUTANE	Short-term exposure limit (15-minute): WEL 750 ppm Long-term exposure limit (8-hour TWA): WEL 800 ppm
PROPANE	Short-term exposure limit (15-minute): WEL No std. Long-term exposure limit (8-hour TWA): SUP ppm
PERMETHRIN	Short-term exposure limit (15-minute): SUP ppm Long-term exposure limit (8-hour TWA): 5 mg/m ³

OEL = Occupational Exposure Limit
WEL = Workplace Exposure Limit

8.2 Exposure Controls:

Personal protective equipment:

General protective and hygienic measures: Provide adequate ventilation. Avoid inhalation of vapours and spray/mists. Observe any occupational exposure limits for the product or ingredients. Do not eat, drink or smoke when using the product.

Breathing equipment: If ventilation is inadequate, suitable respiratory protection must be worn.

Protection of hands: Due to the packaging form, aerosol, risk of skin contact is small. 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.

Wash hands after handling. Wash promptly if skin becomes contaminated. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin.

Eye protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance	aerosol
Odour	organic solvent
pH	not available
Boiling point	not available
Melting point	not available
Flash point	< -40°C
Flammability Limits	Lower: 1.8% - Upper 9.5%
Autoflammability	410-580°C

9.2 Other information: Information given is applicable to the major ingredient.

10. STABILITY & REACTIVITY

10.1 Reactivity:	no data
10.2 Stability:	Avoid the following conditions: Heat, sparks, flames.
10.3 Possibility of hazardous reactions	no data
10.4 Conditions to Avoid:	Avoid heat, flames and other sources of ignition. Avoid exposing aerosol containers to high temperatures or direct sunlight.
10.5 Incompatible materials:	no data.
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.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:		
Acute Toxicity (Oral LD50) OECD 420	Odourless Kerosine	> 5000 mg/kg Rat
	Permethrin	> 2000 mg/kg Rat
	Tetramethrin	> 2000 mg/kg Rat
	Piperonyl butoxide	4570-7220 mg/kg Rat
Acute Toxicity (Dermal LD50) OECD 402	Odourless Kerosine	> 2000 mg/kg Rabbit
	Permethrin	> 2000 mg/kg Rat
	Tetramethrin	> 2000 mg/kg Rat
	Piperonyl butoxide	> 2000 mg/kg Rabbit
Acute Toxicity (Inhalation LC50) OECD 403	Odourless Kerosine	> 5.28 mg/l (vapours) Rat 4 hours
	Permethrin	> 0.45 mg/litre Rat

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	Tetramethrin	> 5.28 mg/l Rat	
	Piperonyl butoxide	> 5.28 mg/l Rat	
Skin Corrosion/Irritation: Erythema/eschar score	Odourless Kerosine	No erythema (0).	
	Permethrin	slight irritation	
Oedema score OECD 404	Odourless Kerosine	No oedema (0).	
	Permethrin	mild irritation	
Human Skin Model Test Non Corrosive to skin.	Not available.		
Serious eye damage/irritation:	Not Irritating.		
Respiratory or skin sensitisation:			
Respiratory sensitisation	No information required.		
There is no evidence that the material can lead to respiratory hypersensitivity.			
Skin sensitisation			
Buehler test: Guinea Pig	Odourless Kerosine	Not Sensitising.	
OECD 406	Permethrin	Non-sensitiser to skin of Guinea pigs	
	Piperonyl butoxide	Not Sensitising.	
Germ cell mutagenicity: Genotoxicity - In Vitro	Odourless Kerosine	Negative. This substance has no evidence of mutagenic properties.	
	Permethrin	Non genotoxic	
Ames Test	Tetramethrin	Non genotoxic	
Method: ASTM E1687	Piperonyl butoxide	Non genotoxic	
Genotoxicity - In Vivo	Odourless Kerosine	Negative. This substance has no evidence of mutagenic properties.	
	Permethrin	Non genotoxic	
Chromosome aberration: OECD Guideline 475	Tetramethrin	Non genotoxic	
	Piperonyl butoxide	Non genotoxic	
Carcinogenicity: Method equivalent to OECD 451	Odourless Kerosine	LOAEL 200 mg/kg/day Dermal Mouse.	This substance has no evidence of carcinogenic properties.
	Permethrin	Non carcinogenic	
	Tetramethrin	Classified Carc. Cat 2. The mechanisms are not thought relevant for humans	
	Piperonyl butoxide	Non carcinogenic	
Piperonyl butoxide Reproductive Toxicity: Reproductive Toxicity – Fertility OECD Test Guideline 421	Odourless Kerosine	NOAEL >3000 mg/kg/day Oral Rat	This substance has no evidence of toxicity to reproduction.
Reproductive Toxicity - Development Developmental toxicity: Method OECD 414	Odourless Kerosine	NOAEL 1000 mg/kg/day Oral Rat	This substance has no evidence of toxicity to reproduction.
	Permethrin	Non reprotoxic/teratogenic	
Tetramethrin	Non reprotoxic/teratogenic		
	Piperonyl butoxide	Non reprotoxic/teratogenic	
Specific target organ toxicity - repeated exposure: STOT - Repeated exposure	Odourless Kerosine	NOAEL 750 mg/kg Oral Rat	
Inhalation	No specific health warnings noted		
Ingestion	Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs.		
Skin contact	No specific health warnings noted. Not a skin sensitiser.		
Eye contact	No specific health warnings noted.		
Medical Symptoms	Skin irritation.		

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Acute Toxicity – Fish	Odourless Kerosine	LC50 96 hours > 10 mg/l Onchorhynchus mykiss (Rainbow trout)
OECD 203	Permethrin	LC50 96 hours 0.145 mg/l Common Carp, Cyprinus carpio,
Tetramethrin		LC50 (96h): 0,033 mg/l Brachydanio rerio (fish)
Piperonyl butoxide		LC50 (96h): 3.9 mg/l Cyprinodon variegatus
Acute Toxicity - Aquatic Invertebrates	Odourless Kerosine	EC50 48 hours > 10 mg/l Daphnia magna

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OECD 202	Permethrin	EC50 24 hours : 0.020 mg/l Daphnia magna
Tetramethrin	EC50 48 hours 0,47 mg/l Daphnia magna	
Piperonyl butoxide	EC50 48 hours 0,51 mg/l Daphnia magna	
Acute Toxicity - Aquatic Plants	Odourless Kerosine	Not available.
Permethrin	EbC50 (72 h) ¹ : >0.011 mg/l, ErC50 ² : >0.011 mg/l Scenedesmus subspicatus (algae)	
Tetramethrin	1,36 mg/l Scenedesmus subspicatus (algae)	
Piperonyl butoxide	2.09 mg/l Scenedesmus subspicatus	
Acute Toxicity – Microorganisms		
Odourless Kerosine	EC50 72 hours 678 mg/l Activated sludge	
QSAR modeled data	Permethrin	Activated sewage sludge, 3 hours : EC50: >1000 mg/l

12.2. Persistence and degradability

Degradability
Odourless Kerosine This substance is inherently biodegradable
Permethrin disappears rapidly from the environment: in 6 to 24 h from ponds and streams; in 7 days from pond sediment; and in 58 days from foliage and soil in forests. Thirty per cent of the compound was lost within 1 week from cotton leaves in a field. In water and on soil surfaces, permethrin is photodegraded by sunlight. Ester cleavage and cis:trans interconversion are, as with plants, the major reactions.

Biodegradation
Odourless Kerosine No information required. Substance is a UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.
Permethrin is readily taken up by aquatic organisms: bio-concentration factors range from 43 to 750 for various organisms. In all the aquatic organisms studied, absorbed permethrin is also rapidly lost on transfer to clean water. There is no bioaccumulation in birds. Therefore, the compound, in practice, can be regarded as having no tendency to bioaccumulate.

Tetramethrin: The substance was found to be moderately biodegradable under the test conditions within 28 days. The substance was found to be ultimate biodegradable by about 20% based on BOD measurement.

Piperonyl butoxide: The substance is not readily biodegradable

12.3. Bioaccumulative potential

Partition coefficient
Odourless Kerosine No information required. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Tetramethrin: BCF: 6.6 - 20 – 634
Piperonyl butoxide: BCF: 91-260-380

12.4. Mobility in soil

Mobility:
Leaching potential of Permethrin and its degradates showed that very little downward movement occurs in soil. Tetramethrin: The values of Koc (2045; 2754) indicate that it is immobile and remains preferentially in soil. Piperonyl butoxide has low to moderate potential of mobility in soil.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects None known.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Do not puncture or incinerate, even when empty.
Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority Containers should be thoroughly emptied before disposal because of the risk of an explosion. Empty containers must not be punctured or incinerated because of the risk of an explosion.

14. TRANSPORT INFORMATION

General

This product is packed in accordance with the Limited Quantity Provisions of CDGCP2, ADR and IMDG. These provisions allow transport of aerosols of less than 1 litre packed in cartons of less than 30kg gross weight to be exempt from control providing that they are labelled in accordance with the requirements of these regulations to show that they are being transported as Limited Quantities. Aerosols not so packed and labelled must show the following.

14.1 UN-Number

ADR, IMDG, IATA : 1950.

14.2 UN proper shipping name

ADR, IMDG, IATA: AEROSOLS (PERMETHRIN).

14.3 Transport hazard class(es)

ADR, IMDG, IATA Class: 2.1.

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14.4 Packaging Group

ADR, IMDG, IATA:

Not applicable.

14.5 Environmental hazards:

Marine pollutant.

14.6 Special precautions for user

F-D, S-U

Tunnel restriction code

(D)

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific to this substance:**

This substance is classified and labelled in accordance with regulation 1999/45/EC, 1272/2008, the statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulations, 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

not undertaken for this material

16. OTHER INFORMATION**Reason for revision:**

Replaces version dated March 2015. Revision to tetramethrin classification; sections 3, 11, 12 & 16 amended.

Hazard statements in full

EUH066 Repeated exposure may cause skin dryness or cracking.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Liability

The product label provides information on the use of the product: do not use otherwise, unless you have assessed any potential hazard involved and the safety measures required. Prepared by VITAX LTD, for Health and Safety purposes from the best knowledge available at the time of printing.