

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

NIPPON PEST SMOKE GREENHOUSE FUMIGATOR

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

Identified uses

Insecticide/ biocide

Uses advised against

No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier

Vitax Ltd, Owen Street, Coalville, Leics LE67 3DE United Kingdom

Tel: 01530 510060

1.4. Emergency telephone number

Emergency telephone

+44 (0) 1530 510060 (Monday to Friday 9:00-17:00 GMT)

IRL ONLY:

In the event of emergency, call the National Poisons Information Centre, Beaumont Hospital at 01 809 2166 or 01 837 9964.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification

Physical hazards

Not classified

Health hazards

Skin Sens. 1 - H317

Environmental hazards

Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Physicochemical

Product burns without a flame to give a dense white harmful smoke.

2.2. Label elements

Pictogram



Signal word

Warning

Hazard statements

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P220 Keep away from combustible materials.

P261 Avoid breathing vapour/spray.

P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

P501 Dispose of contents/container in accordance with national regulations.

P102 Keep out of reach of children.

Contains PERMETHRIN

2.3. Other hazards

Not known

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Chemical Name	CAS-No./ EINECS-No.	Annex Index or REACH number	Symbol(s) and Phrases	Concentration [%]
POTASSIUM CHLORATE 10-30%	3811-04-9 223-289-7	N/A	Ox. Sol 1 – H271 Acute Tox. 4 - H302, H332 Aquatic chronic 2 - H411	10-30%
PERMETHRIN	052645-53-1 258-067-9		Acute Tox. 4 - H302, H332 Aquatic acute 1 - H400 Skin Sens 1 – H317 Aquatic chronic 2 - H410 M factor (Acute) = 1000 M factor (Chronic) = 1000	10-30%

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information	Remove affected person from source of contamination. Remove contaminated clothing immediately and dispose of safely.
Inhalation	Remove affected person from source of contamination. 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.
Ingestion	Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
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. Get medical attention immediately. Continue to rinse.

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

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

Notes for the doctor	This product contains a Pyrethroid, and MUST NOT be confused with organophosphorus compounds.
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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Do not use high volume water jet.
Unsuitable extinguishing media	High volume water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards	In case of fire the evolution of dangerous gases is possible. Contains potassium chlorate which is classified as an oxidising agent. This will assist combustion in a fire situation.
Hazardous combustion products	Does not decompose when used and stored as recommended.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapours. Containers close to fire should be removed or cooled with water. Contain and collect extinguishing 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	Wear protective clothing as described in Section 8 of this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Avoid contact with skin or inhalation of spillage, dust or vapour. Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13. Avoid the spillage or runoff entering drains, sewers or watercourses.
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6.4. Reference to other sections

N/a

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Usage precautions	Read and follow manufacturer's recommendations. Avoid inhalation of dust and contact with skin and eyes. Do not eat, drink or smoke when using the product.
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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Keep separate from food, feedstuffs, fertilisers and other sensitive material. Store in tightly closed, original container in a dry and cool place. Keep away from heat, sparks and open flame.
Storage class	Keep in pesticide store - product is an insecticide of low toxicity. Physically and chemically stable for at least 2 years when stored in the original, unopened containers at ambient temperatures.
7.3. Specific end use(s)	
Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
Usage description	Biocide smoke generator.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Occupational exposure limits	
TALC	Long-term exposure limit (8-hour TWA): 1 mg/m ³
Ingredient comments	When using this product, refer to the label for details. Should it be necessary to enter the treated area whilst smoke remains in the atmosphere, respiratory protective equipment and eye protection must be used (see HSE Guidance Booklet (HS)G53 'Respiratory Protective Equipment - A Practical Guide for Users')

8.2. Exposure controls

Protective equipment	
Eye/face 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.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
Other skin and body protection	Wear apron or protective clothing in case of contact.
Hygiene measures	Wash contaminated clothing before reuse. Wash hands at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	Powder
Colour	White/off-white.
Odour	Characteristic.
Solubility(ies)	Slightly soluble in water.
Auto-ignition temperature	>130°C

9.2. Other information No data available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	No data available
10.2. Chemical stability	
Stability	Stable at normal ambient temperatures and when used as recommended.
10.3. Possibility of hazardous reactions	
Possibility of hazardous reactions	Not known. No potentially hazardous reactions known.
10.4. Conditions to avoid	
Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.
10.5. Incompatible materials	
Materials to avoid	Flammable/combustible materials.
10.6. Hazardous decomposition products	
Hazardous decomposition products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Toxicological effects	Oral LD50 (rat) 480 mg/kg Permethrin, Oral LD50 (rat) 1200 mg/kg Potassium Chlorate.
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Acute toxicity – oral	ATE oral (mg/kg) 2656.34
Acute toxicity – inhalation	ATE inhalation (gases ppm) 36290.32
	ATE inhalation (vapours mg/l) 88.71
	ATE inhalation (dusts/mists mg/l) 9.01
Inhalation	Smoke may cause upper airway irritation.
Ingestion	Burning in mouth, vomiting, nausea, tremors and convulsions may occur.
Skin contact	May cause skin irritation/eczema. May cause sensitisation by skin contact.
Eye contact	May cause temporary eye irritation.
Route of entry	Inhalation Skin and/or eye contact Ingestion.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
12.1. Toxicity	
Toxicity	Very toxic to aquatic organisms.
Acute toxicity - fish	LC ₅₀ , 96 hours: 0.0076 mg/l, Fish
Acute toxicity – aquatic invertebrates	EC ₅₀ , 48 hours: 0.00017 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: 0.497 mg/l, Algae
12.2. Persistence and degradability	
Persistence and degradability	The product is not readily biodegradable.
12.3. Bioaccumulative potential	
Bioaccumulative potential	No data available on bioaccumulation.
12.4. Mobility in soil	
	No data available
12.5. Results of PBT and vPvB assessment	
	No data available
12.6. Other adverse effects	
Other adverse effects	Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods	
General information	This material and its container must be disposed of in a safe way.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: TRANSPORT INFORMATION

General	This product is packed in accordance with the Excepted Quantity provisions of ADR. Materials not so packed and labelled must show the following:
14.1. UN number	
UN No. (ADR/RID)	3077
UN No. (IMDG)	3077
UN No. (ICAO)	3077
UN No. (ADN)	3077
14.2. UN proper shipping name	
Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. (Contains Permethrin, Potassium Chlorate)
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. (Contains Permethrin, Potassium Chlorate)
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. (Contains Permethrin, Potassium Chlorate)
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE. SOLID, N.O.S. (Contains Permethrin, Potassium Chlorate)
14.3. Transport hazard class(es)	
ADR/RID class	9
ADR/RID classification code	M7
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9
Transport labels	

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	2Z
Hazard Identification Number ADR/RID	90
Tunnel restriction code	(E)
LQ	5kg
EQ	E1

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

SECTION 15: REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations This product is approved under the Control of Pesticides Regulations 1986. HSE No. 9560.

15.2. Chemical safety assessment No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

General information

This product is approved under the Control of Pesticides Regulations 1986 (as amended). The information contained in this Safety Data Sheet is believed to be true and correct, as of the issue date. The accuracy and completeness of this information and any recommendations, or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use for this product.

Reason for revision:

Supersedes revision: 7 August 2017; Sections 1.2, 1.4, 7.3 updated.

Hazard statements in full

H271 May cause fire or explosion; strong oxidiser.
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
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.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.