



SAFETY DATA SHEET

Section 1 - Identification

Product identifier **Imperator® Insecticide Smoke Generator 31G**

Other means of identification

SDS No. 796

Recommended use of the chemical and restrictions on use

Recommended use Insecticide.

Restrictions on use No other uses are advised.
Keep out of the Reach of Children!

Details of manufacturer or importer

Company name AgNova Technologies Pty Ltd
Address Unit 4, 482 Kingsford Smith Drive
Hamilton, Queensland 4007
Australia

Telephone AgNova Technologies Pty 03 9899 8100 (office hours)
Ltd

Website agnova.com.au

E-mail info@agnova.com.au

Emergency phone number IXOM ERS 1800 033 111 (24 hours)
Poisons Information 13 11 26
Centre

Section 2 - Hazard(s) identification

Classification of the hazardous chemical

Physical hazards Not classified.

Health hazards Acute toxicity, oral Category 4
Sensitisation, skin Category 1

Environmental hazards Hazardous to the aquatic environment, acute Category 1
hazard
Hazardous to the aquatic environment, Category 1
long-term hazard

Label elements, including precautionary statements

Hazard symbol(s)



Exclamation Environment
mark

Signal word

Warning

Hazard statement(s)

Harmful if swallowed.
May cause an allergic skin reaction.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)**Prevention**

Avoid breathing dust/smoke
 Wear protective gloves.
 Do not eat, drink or smoke when using this product.
 Wash thoroughly after handling.
 Contaminated work clothing should not be allowed out of the workplace.
 Avoid release to the environment.

Response

IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell. Rinse mouth.
 IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.
 Collect spillage.

Storage

Not available.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

This is a pesticide product registered in Australia under the Australian Pesticides and Veterinary Medicines Authority (APVMA) and is subject to certain labeling requirements. These requirements may differ from the classification criteria and hazard information required for GHS compliant safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Other hazards which do not result in classification

None known.

Section 3 - Composition and information on ingredients**Mixture**

Identity of chemical ingredients	CAS number and other unique identifiers	Concentration of ingredients
Permethrin	52645-53-1	13.5 %
Potassium chlorate	3811-04-9	10 - 30 %
Talc (Mg ₃ H ₂ (SiO ₃) ₄)	14807-96-6	30 - 60 %
Other components below reportable levels		11.5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Composition comments

Occupational Exposure Limits for impurities are listed in Section 8.

Section 4 - First aid measures**Description of necessary first aid measures****Inhalation**

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. If experiencing respiratory symptoms: call a poison centre or doctor / physician. Call a physician if symptoms develop or persist.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Wash contaminated clothing before reuse. Get medical attention if irritation develops and persists.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell. Do not give anything by mouth to an unconscious person. Have person sip a glass of water if able to swallow.

Personal protection for first-aid responders

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

Symptoms caused by exposure

May cause an allergic skin reaction. Dusts may irritate the respiratory tract, skin and eyes. Difficulty in breathing. Dermatitis. Rash.

Medical attention and special treatment

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

Section 5 - Firefighting measures

Extinguishing media	
Suitable extinguishing equipment	Water spray, wet sand or wet earth. Foam. Carbon dioxide (CO ₂).
Unsuitable extinguishing equipment	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Not classified as an oxidizer at the manufactured concentration. If concentrated by evaporation this product may become an oxidizer and can sustain combustion. Contact with oxidizable substances may result in ignition, violent combustion or explosion. Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazchem code	1Y
General fire hazards	Contact with combustible material may cause fire.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6 - Accidental release measures

Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Avoid inhalation of dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Avoid inhalation of dust. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	<p>Minimise dust generation and accumulation. Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.</p> <p>Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.</p> <p>Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>

Section 7 - Handling and storage

Precautions for safe handling	Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not taste or swallow. Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Do not store near combustible materials. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure controls and personal protection

Control parameters	Follow standard monitoring procedures.
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Occupational exposure limits

Australia. National Workplace OELs (Workplace Exposure Standards for Airborne Contaminants, Appendix A)

Components	Type	Value
Permethrin (CAS 52645-53-1)	TWA	5 mg/m3
Talc (Mg3H2(SiO3)4) (CAS 14807-96-6)	TWA	2.5 mg/m3

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
Permethrin (CAS 52645-53-1)	TWA	5 mg/m3	
Talc (Mg3H2(SiO3)4) (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.

UK. OELs. Workplace Exposure Limits (WELs) (EH40/2005 (Fourth Edition 2020)), Table 1

Components	Type	Value	Form
Permethrin (CAS 52645-53-1)	TWA	1 mg/m3	
Talc (Mg3H2(SiO3)4) (CAS 14807-96-6)	TWA	1 mg/m3	Respirable dust.

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as updated

Components	Type	Value	Form
Talc (Mg3H2(SiO3)4) (CAS 14807-96-6)	TWA	4 mg/m3	Inhalable dust.

Biological limit values

No biological exposure limits noted for the ingredient(s).

Control banding

Not available.

Engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection Wear safety glasses with side shields (or goggles). Face shield is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Section 9 - Physical and chemical properties

Physical state	Solid.
Form	Powder.
Colour	Off-white.

Odour	Odourless.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Upper/lower explosive limits	
Explosion limit - lower (%)	Not available.
Explosion limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility	
Solubility (water)	Partly soluble.
Flammability (solid, gas)	Not available.
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Particle characteristics	Not available.
Data relevant with regard to physical hazard classes	No relevant additional information available.
Other physical and chemical parameters	
Explosive properties	Not explosive.
Oxidising properties	Contains an oxidizing agent; may assist combustion

Section 10 - Stability and reactivity

Reactivity	Reacts with acids liberating toxic gas (chlorine).
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid conditions which create dust. Keep away from heat, spark, open flames and other sources of ignition. Avoid electro-static discharge. Contact with incompatible materials.
Incompatible materials	Strong acids and bases. Strong oxidising agents. Halogenated materials.
Hazardous decomposition products	oxygen Ammonium chloride. Ammonia. Carbon oxides. Nitrogen oxides (NOx). Hydrogen cyanide (hydrocyanic acid).

Section 11 - Toxicological information

Information on possible routes of exposure	
Inhalation	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
Skin contact	Dust or powder may irritate the skin. May cause an allergic skin reaction.
Eye contact	Dust may irritate the eyes.
Ingestion	Harmful if swallowed.
Early onset symptoms related to exposure	Dusts may irritate the respiratory tract, skin and eyes. May cause an allergic skin reaction. Dermatitis. Rash.
Delayed health effects from exposure	Not available.
Acute toxicity	Harmful if swallowed.

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	
Respiratory sensitisation	Not a respiratory sensitiser.
Skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
ACGIH Carcinogens	
Permethrin (CAS 52645-53-1)	A4 Not classifiable as a human carcinogen.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Permethrin (CAS 52645-53-1)	3 Not classifiable as to carcinogenicity to humans.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Section 12 - Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects.		
Components	Species		Test Results
Permethrin (CAS 52645-53-1)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Daphnia magna)	0.0006 - 0.0025 mg/l, 48 hours
Fish	LC50	Channel catfish (Ictalurus punctatus)	0.0011 mg/l, 96 hours
Persistence and degradability	Active Ingredient (a.i.): Not rapidly biodegradable.		
Bioaccumulative potential			
Partition coefficient			
n-octanol / water (log Kow)			
Permethrin	6.15		
Mobility in soil	No data available for this product.		
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

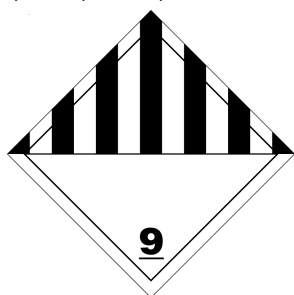
Section 13 - Disposal considerations

Disposal methods	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Residual waste	Dispose of in accordance with all applicable regulations. Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner.
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

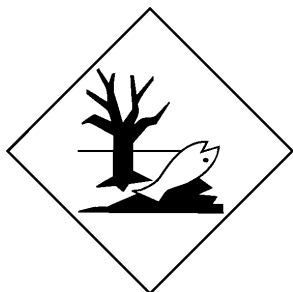
Section 14 - Transport information

ADG

UN number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Potassium chlorate)

Transport hazard class(es)**Class** 9**Subsidiary hazard** -**Packing group** III**Environmental hazards** No**Hazchem code** 1Y**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**RID****UN number** 3077**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Potassium chlorate)**Transport hazard class(es)****Class** 9**Subsidiary hazard** -**Label(s)** 9**Packing group** III**Environmental hazards** Yes**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**IATA****UN number** 3077**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Potassium Chlorate)**Transport hazard class(es)****Class** 9**Subsidiary hazard** -**Packing group** III**Environmental hazards** No**ERG Code** 5L**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Other information****Passenger and cargo aircraft** Allowed with restrictions.**Cargo aircraft only** Allowed with restrictions.**IMDG****UN number** 3077**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Potassium Chlorate), MARINE POLLUTANT**Transport hazard class(es)****Class** 9**Subsidiary hazard** -**Packing group** III**Environmental hazards****Marine pollutant** Yes**EmS** F-A, S-Q**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.**ADG; IATA; IMDG; RID**

Marine pollutant



General information

IMDG Regulated Marine Pollutant.

According to the ADG code, this product can be shipped as limited quantity if the inner packaging is less than 5 kg, and the total gross weight is less than 30 kg.

Section 15 - Regulatory information

Safety, health and environmental regulations

National regulations

This Safety Data Sheet was prepared in accordance with Australia Model Code of Practice for the preparation of Safety Data Sheets for Hazardous Chemicals.

Poison Schedule: S5
Signal Word CAUTION

Australia Medicines & Poisons Appendix E

Potassium chlorate (CAS 3811-04-9)

Australia Medicines & Poisons Schedule 2

Permethrin (CAS 52645-53-1)

Potassium chlorate (CAS 3811-04-9)

Australia Medicines & Poisons Schedule 4

Permethrin (CAS 52645-53-1)

Australia Medicines & Poisons Schedule 5

Permethrin (CAS 52645-53-1)

Potassium chlorate (CAS 3811-04-9)

Australia Medicines & Poisons Schedule 6

Permethrin (CAS 52645-53-1)

Australia National Pollutant Inventory (NPI): Threshold quantity

Potassium chlorate (CAS 3811-04-9)

10 tonnes/yr Threshold Category: 1

High Volume Industrial Chemicals (HVIC)

Talc ($\text{Mg}_3\text{H}_2(\text{SiO}_3)_4$) (CAS 14807-96-6)

1000 - 9999 TONNES See the regulation for additional information.

Importation of Ozone Depleting Substances (Customs(Prohibited imports) Regulations 1956, Schedule 10, as amended)

Not listed.

National Pollutant Inventory (NPI) substance reporting list

Talc ($\text{Mg}_3\text{H}_2(\text{SiO}_3)_4$) (CAS 14807-96-6)

2000 tonnes/yr Threshold Category: 2B

400 tonnes/yr Threshold Category: 2A

Prohibited Carcinogenic Substances

Not regulated.

Prohibited Substances (National Model Regulation for the control of Workplace Hazardous Substances, Schedule 2 NOHSC:1005 (1994) as amended)

Not listed.

Restricted Carcinogenic Substances

Not regulated.

Restricted Importation of Organochlorine Chemicals (Customs(Prohibited Imports) Regulations 1956, Schedule 9)

Not listed.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto Protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 - Any other relevant information

Issue date	13-July-2023
Revision date	07-August-2025
Key abbreviations or acronyms used	AICIS: Australian Inventory of Industrial Chemicals.
Disclaimer	AgNova Technologies Pty Ltd cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. ©2025 American Vanguard Corporation. All Rights Reserved. American Vanguard and the American Vanguard Logo are trademarks owned by American Vanguard Corporation. This information is provided for the limited guidance to the user. While AgNova Technologies Pty Ltd believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

ACGIH is a trademark of the American Conference of Governmental Industrial Hygienists.

Revision information	Section 2 - Hazard(s) identification: Classification of the substance or mixture
	Section 2 - Hazard(s) identification: GHS Hazard Statements
	Section 2 - Hazard(s) identification: Prevention
	Section 2 - Hazard(s) identification: Storage
	Section 2 - Hazard(s) identification: Supplemental information
	Section 5 - Firefighting measures: Suitable extinguishing equipment
	Section 5 - Firefighting measures: Specific hazards arising from the chemical
	Section 9 - Physical and chemical properties: Oxidising properties
	Section 10 - Stability and reactivity: Conditions to avoid
	Section 10 - Stability and reactivity: Hazardous decomposition products
	Transport Information: Material Transportation Information
	Section 16 - Any other relevant information: Disclaimer
	GHS: Classification