Date of Issue: 20 January 2022

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product name:	**Biopren® 4GR Mosquito Larvicide**
Other means of identification	**Biopren 4g/kg Granular**
Recommended use of the chemical and restrictions on use:	**For the prevention of adult mosquito emergence**
Supplier:	**Garrards Pty Ltd**
Street address:	**32 Kenworth Place, Brendale, QLD 4500**
Telephone no.:	**+61 7 3881 1693 (Monday to Friday, 8:00a.m. – 5:00p.m. EST)**
Fax:	**+61 7 3881 1781**
S-methoprene manufacturer:	**Bábolna Bioenvironmental Centre Ltd** **H-1107 Budapest, Szállás u.6, Hungary**
Emergency telephone:	**Poisons Information Centre 13 11 26 (24 hours)**

2. HAZARDS IDENTIFICATION

Classification of the substance mixture:

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition).

Not classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion (w/w)
The components in this formulation are considered not to be hazardous and therefore are not required to be disclosed according to the WHS Regulations. Following is the information for the active constituent which is not classified as hazardous in this formulation.		
S-methoprene	65733-16-6	0.4% (4 g/kg)

4. FIRST AID MEASURES

Speed in treatment is essential. If poisoning occurs, contact a Poisons Information Centre. Phone Australia 131126; New Zealand 0800 764 766 or a doctor. Have this SDS or the label with you.

Inhalation: There is no inhalation risk with this product. Bring affected person to fresh air.

Skin contact: Remove contaminated clothing and wash with plenty of water and soap. If symptoms develop, seek medical attention.

Eye contact: Flush eyes immediately with water or normal saline solution until the product is removed or until a few minutes after irritation has ceased. If symptoms develop, seek medical attention.

Ingestion: If swallowed, wash mouth with water and contact a Poisons Information Centre, or call a doctor. Do not induce vomiting unless told to by the Poisons Information Centre or doctor.

First aid facilities: Eyewash and normal washroom facilities.

Medical attention and special treatment needed: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Not combustible. Use extinguishing media suited to burning materials.
Hazchem code:	None.
Specific hazards arising from the substance or mixture:	Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. Fire decomposition products from this product may be harmful if inhaled. Take appropriate protective measures.
Special protective equipment and precautions for fire-fighters:	In case of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and chemical-protective clothing. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately. Do not allow contaminated water to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/ Environmental precautions:	In the event of a spill, prevent spillage from entering drains or water courses with absorbent material and call emergency services.
Personal precautions/ Protective equipment:	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.
Methods and materials for containment and cleaning up:	Contain - prevent run off into drains and waterways. For minor spills, clean up, rinsing to sewer and put empty container in garbage.

7. HANDLING AND STORAGE

Precautions for safe handling:	Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright. Refer to 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.
Conditions for safe storage, including any incompatibilities:	Store packages of this product in a cool place. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under 'Incompatibilities' in Section 10. Check packaging - there may be further storage instructions on the label.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:	No value assigned for this specific material by Safe Work Australia. No biological limit allocated for the product or any of its ingredients. No biological monitoring is required.
Appropriate engineering controls:	Use in well ventilated areas. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):

See container label safety directions. The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Observe good standards of hygiene and cleanliness. Always wash hands, arms and face thoroughly with soap and water before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment with detergent and warm water before storage or re-use.

Respiratory protection:	Respiratory protective equipment is not needed under normal and intended conditions of product use. However if protection is required, consult AS/NZS 1715 and AS/NZS 1716 for further information.

Eye and face protection:	Eye and face protection is not needed under normal and intended conditions of product use. However if protection is required, consult AS/NZS 1336 and AS/NZS 1337 for further information.
Skin protection:	Elbow-length rubber or chemical resistant gloves must be worn when opening the container and using the product. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use. Consult AS/NZS 2161 for further information.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Granulated solid.
Colour:	Sandy-coloured.
Odour:	No odour.
pH:	No information available.
Specific gravity:	>1
Melting point/Freezing point:	No information available. Solid at normal temperatures.
Boiling point/range:	No information available.
Flash point:	No information available.
Evaporation point:	No information available.
Vapour pressure:	No information available.
Vapour density:	No information available.
Solubility:	Negligible.
Partition coefficient: n- octanol/water	No information available.
Auto-ignition temperature:	Not relevant.
Decomposition temperature:	No information available.
Viscosity:	Not relevant.

10. STABILITY AND REACTIVITY

Reactivity:	Non-reactive under normal conditions of use.
Chemical stability:	Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions:	No information available.
Conditions to avoid:	No information available.
Incompatible materials:	No particular incompatibilities. Store and use as directed.
Hazardous decomposition products:	Only small quantities of decomposition products are expected from this products at temperatures normally achieved in a fire. Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:	Not harmful and does not cause toxicity via oral, dermal and inhalation routes, according to available data.
Skin irritation:	Not a skin irritant according to available data.
Eye irritation:	Not an eye irritant according to available data.
Respiratory or skin sensitisation:	Not a skin sensitiser and not expected to be a respiratory sensitiser according to available data.
Germ cell mutagenicity:	Not suspected to cause genetic defects according to available data.
Carcinogenicity:	Not considered to be carcinogenic according to available data.
Reproductive toxicity:	Not considered to be toxic to reproduction according to available data.
STOT-single exposure:	Not expected to cause toxicity to a specific target organ according to available data.
STOT-repeated exposure:	Not expected to cause toxicity to a specific target organ according to available data.
Aspiration hazard:	Not expected to be an aspiration hazard according to available data.

Chronic health effects: Not expected to cause chronic health effects according to available data.

12. ECOLOGICAL INFORMATION

Ecotoxicity: Available information on this product indicates that this product is not classified as an acute aquatic toxicant.

Toxicity data for the active constituent, s-methoprene:
The below information is based on the CLH Report for S-Methoprene (July 2015).

Fish LC_{50} = 4.26 mg/L at 96h, s- methoprene is considered acutely toxic.
Aquatic invertebrate *Daphnia magna* EC_{50} = 0.22 mg/L at 48h, s- methoprene is considered acutely toxic.
Aquatic invertebrate *Daphnia magna* $NOEC_{50}$ = 0.019 mg/L at 21D, s- methoprene is considered chronically toxic.

Persistence/Degradability: It is considered that s-methoprene is not readily biodegradable.

Details of s-methoprene is available at:
https://echa.europa.eu/documents/10162/54df99ee-f938-4037-8f94-e325674786b2

Bioaccumulative potential: It is considered that s-methoprene has the potential to bioaccumulate.

Details of s-methoprene is available at:
https://echa.europa.eu/documents/10162/54df99ee-f938-4037-8f94-e325674786b2

Mobility in soil: It is considered that s-methoprene is expected to have no mobility when released to soil.

Details of s-methoprene is available at:
https://pubchem.ncbi.nlm.nih.gov/compound/Methoprene#section=Ecotoxicity-Values

13. DISPOSAL CONSIDERATIONS

Disposal methods: Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Break, crush or puncture and dispose of empty containers in a local authority landfill. Triple rinse and bury rinsate and empty capsules in a local authority landfill. If no landfill is available, bury the containers below 0.5m in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product must not be burnt. Do NOT re-use containers for any other purpose.

14. TRANSPORT INFORMATION

Road and rail transport: Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Marine transport: Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON- DANGEROUS GOODS.

Air transport: Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON- DANGEROUS GOODS.

15. REGULATORY INFORMATION

Poison schedule (SUSMP): Not a scheduled poison.

APVMA approval no.: 62018

AICS: All the constituents of this material are either listed on the Australian Inventory of Chemical Substances (AICS), not required due to the nature of the chemical, or have been assessed under the Industrial Chemicals (Notification and Assessment) Act 1989 as amended.

16. OTHER INFORMATION

General information: None.

Issue number: 003

Issue date: 20 January 2022

In any event, the review and, if necessary, the re-issue of an SDS shall be no longerthan 5 years after the last date of issue.

Reason(s) for issue: Five-year update.

Literary Reference: None

Key abbreviations or acronyms used:

ADG Code - Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)

AICS - Australian Inventory of Chemical Substances

AgVet Code Act 1994 – Agricultural and Veterinary Chemicals Code Act 1994

APVMA – Agricultural Pesticides and Veterinary Medicines Australia

GHS - Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition) 2017

IARC - International Agency for Research on Cancer

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice (December 2011)

STEL - Short term exposure limit means the average airborne concentration of a substance calculated over a 15 minute period. The STEL should not be exceeded at any time during a normal eight hour working day.

SUSMP - Standard for the Uniform Scheduling of Medicines & Poisons

SWA - Safe Work Australia, formerly ASCC and NOHSC

TGA – Therapeutic Goods Australia

TWA - Time-weighted average means the average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

WHS – Workplace Health and Safety

The physical values and properties described in this SDS are typical values based on scientific literature and material produced to date, and are believed to be reliable. The manufacturer provides no warranties, either expressed or implied and assumes no responsibility for the accuracy or completeness of the data contained herein. The information is supplied upon the condition that the persons receiving information will make their own determination as to the suitability for their purposes prior to use of this product. Due care should be taken to ensure that the use of this product and its disposal is in compliance with all relevant Federal, State and Local Government regulations.

End of SDS