

SAFETY DATA SHEET

Abamec Plus

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Name: Abamec Plus
Other identifier: Abamectin 18 g/l EC
Pesticide Classification: Insecticide
Restrictions on use: Agriculture

Supplier
 Enviro Bio-Chem (Pty) Ltd
 Co. Reg. No.: 2013/194774/07
 44 Kerk Street, Lichtenburg
 North West, South Africa 2740

Registration Holder
 RT Chemicals CC
 Co. Reg. No.: CK87/21925/23
 44 Kerk Street, Lichtenburg
 North West, South Africa 2740

Telephone: +27 12 006 0063
Fax: 086 541 7948
Website: www.envirobiochem.co.za

24 Hr Emergency Number: Spillage: 0861 000 366

In case of Poisoning:
 Griffon Poison Information Centre: +27 82 446 8946
 Tygerberg Hospital: (+27 21) 931 6129
 Poison Emergency Enquiries: (+27 21) 689 5227

2. HAZARD IDENTIFICATION

UN GHS, Regulation EC 1272/2008 [EU-GHS/CLP] EU & SANS 10234:2008		
Hazard classes	Hazard categories	Hazard statements
Acute toxicity oral	Category 4	H302
Acute toxicity aspiration	Category 1	H304
Skin irritation	Category 2	H315
Serious eye damage	Category 1	H318
STOT SE respiratory	Category 3	H335
STOT SE - CNS	Category 3	H336
STOT RE - CNS	Category 2	H373
Reproductive toxicity	Category 2	H361d
Flammable liquid	Category 1	H224
Aquatic toxicity acute	Category 1	H400
Aquatic toxicity chronic	Category 1	H410

The most important adverse effects:

The most important adverse physiochemical effects: Flammable liquid and vapour.

The most important adverse human health effects: Harmful if inhaled. Causes serious eye damage, skin irritation and may cause an allergic skin reaction.

Label elements:



Signal word: Danger

Hazard statements:

H302: Harmful if swallowed.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H336: May cause drowsiness or dizziness.
H373: May cause damage to organs through prolonged and repeated exposure
H361d: Suspected of damaging unborn child.
H224: Extremely flammable liquid and vapour.
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P102: Keep out of reach of children.
P103: Read label before use.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243: Take precautionary measures against static discharge.
P264: Wash hands, forearms, and face thoroughly after handling.
P261: Avoid breathing dust, fumes, gas, mist, vapours and spray.
P270: Do not eat, drink, or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves and boots, protective clothing, eye protection and face protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER, doctor or physician.
P302+P352: IF ON SKIN: Wash with plenty of water and non-abrasive soap.
P332+P313: If skin irritation or rash occurs: Get medical advice or attention.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so – continue rinsing.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313: If exposed: Call a POISON CENTER, doctor or physician.
P314: Get medical advice or attention if you feel unwell.
P403+P235: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/container in accordance with local/regional/ national/international regulation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances/ Mixture: Mixture

Composition:

Chemical Name	CAS	Conc. (m/m%)	Classification EC 1272/2008
Abamectin	71751-41-2	1.8%	Acute Toxicity (Category 2) H300 Acute Toxicity (Category 1) H330 STOT RE (Category 1) H372 Aquatic Acute (Category 1) H400 Aquatic Chronic (Category 1) H410 Reproductive Toxicity (Category 2) H361d
Butyl Alcohol	71-36-3	<70%	Flammable Liquid (Category 3) H226

			Acute Toxicity (Category 4) H302 Skin Irritation (Category 2) H315 Serious Eye Damage (Category 1) H318 STOT SE (Category 3) H335 STOT SE (Category 3) H336
Surfactant 02024: Isopropanol Polyoxyethylene Sorbitan Monooleate	67-63-0 9005-65-6	<20 %	Eye irritation (Category 2) H319 STOT SE (Category 3) H336
Isopentane	78-78-4	<25%	Flammable Liquid (Category 1) H224 Aspiration Toxicity (Category 1) H304 STOT SE (Category 3) H336 Aquatic Chronic (Category 2) H411

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section. Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure and consult a doctor / poison control centre.

Inhalation: Remove person from contaminated area to fresh air and assist breathing as needed. Seek medical attention if irritation persists / person feels unwell. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Skin: Remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Obtain medical attention if irritation persists / person feels unwell.

Eyes: Flush eyes with clean water. Lift eyelids to facilitate irrigation. If present, remove contact lenses and continue rinsing. Get medical attention immediately.

Ingestion: Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water. If swallowed, get emergency medical help immediately.

Anticipated acute effects: Irritant, may cause an allergic reaction. Hazardous in case of eye contact (corrosive). Hazardous in case of inhalation product is a lung irritant. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation. May be harmful if swallowed.

Anticipated delayed effects: May cause damage to organs through prolonged or repeated exposure. Suspected of damaging the unborn child.

Most important symptoms/effects: None known.

Advice to physician: Treat symptomatically and supportively. No specific antidote known.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use carbon dioxide or dry chemical for small fires and water fog or foam for large fires.

Unsuitable Extinguishing Media: High volume water jet. Use a water jet only to cool heated containers.

Specific hazards: Flammable. Hazardous decomposition products in case of fire: Refer to Section 10: Stability and Reactivity.

Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Avoid inhaling hazardous vapours and fumes from burning materials. Remove container

from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

Personal protective equipment: Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with eyes and skin. Do not breathe in spray mist or dust. Ventilate area of spill, especially in contained areas.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.

Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water. This product is classified as very toxic to aquatic organisms with long-term adverse effects in the aquatic environment. Any spillages or uncontrolled discharges into watercourses should be reported immediately to the police and the Department of Water/Environmental Affairs.

Methods and Materials for Containment: Isolate area and keep unauthorized personnel away. Contain spilled material if possible. Avoid breathing vapours and avoid skin and eye contact. Remove sources of ignition. Wear PPE. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations. Prevent entry into drains, watercourses, confined areas, and prevent contact with vegetation.

Methods and Materials for Clean-up: Contain spilled product by picking up with an electrically protected vacuum cleaner or by wet-brushing and transfer to a container for disposal. Do not create a powder cloud by using a brush or compressed air. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spilled material. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. See section 13 for disposal considerations.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Harmful if swallowed. Avoid contact with eyes and skin. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use. In the case of contact with the product refer to First Aid Measures – Section 4.

General occupational hygiene: Handle in accordance with good industrial hygiene and safety practice. Do not eat drink or smoke when handling this product.

Storage:

Conditions for safe storage: Keep under lock and key and out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed, in an isolated, dry, cool and well-ventilated area. Avoid excess heat. Not to be stored next to foodstuffs, feed and water supplies. Avoid cross contamination with other pesticides and fertilisers.

Incompatible substances and mixtures: Refer to product label.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Limits:

Data not available.

Engineering Controls: It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

Personal Protective Equipment:

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator.

Hand Protection: The use of chemically protective gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Employee must wear appropriate protective clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

Emergency eyewash: Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colour	Light yellow to brown
Odour	No data available
Odour threshold	No data available
pH	5.5 – 6.5
Melting point / freezing point (° C)	No data available
Boiling point (° C)	No data available
Flash point (° C)	27 °C
Evaporation rate	No data available
Flammability	Combustible Liquid
Upper /lower flammability limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density (25°C)	1.116
Water solubility (g/l) at 20°C	No data available
Partition coefficient: n-octanol/water partition coefficient	No data available
Auto-ignition temperature (° C)	No data available
Decomposition temperature (° C)	No data available
Viscosity, dynamic (mPa s)	No data available
Explosive properties	Can form an explosive mixture in air.
Oxidising properties	No data available
Explosive limits	No data available

10. STABILITY AND REACTIVITY

Chemical Stability: The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C. Preferably below 30 °C, and not for prolonged periods in direct sunlight.

Reactivity: The product is stable under normal conditions.

Possibility of Hazardous Reactions: No information available.

Conditions to Avoid: Extreme heat or exposure to flames.

Incompatible Materials: Strong oxidizers, strong bases, strong reducing agents. Abamectin can be hydrolysed by strong caustic solutions.

Hazardous Decomposition Products: Alcohols. Carbon monoxide and carbon dioxide may form under burning conditions or with incomplete combustion.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

Calculated according to GHS:

Acute Oral LD₅₀ (rat): >390 mg/kg

Acute Dermal LD₅₀ (rat): > 2000 mg/kg

Acute Inhalation LC₅₀ (rat, 4 hr): >27 mg/l air.

Skin Irritation: Causes skin irritation.

Eye Damage/Irritation: Causes serious eye damage.

Skin Sensitization: Not classified.

Respiratory Sensitization: Not classified.

Reproductive cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Suspected of damaging unborn child.

Specific target organ toxicity – single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure: May cause damage to organs through prolonged and repeated exposure.

Aspiration hazard: Not classified.

Chronic Effects (other targets e.g. developmental): Not classified

12. ECOLOGICAL INFORMATION

The product is classified as a marine pollutant.

ECOTOXICITY DATA:

Active ingredient: Abamectin CAS No. 71751-41-2

Fish

LC₅₀ (96 hr) 0.007 mg/l (rainbow trout); 0.0096 mg/l (bluegill sunfish).

Daphnia

EC₅₀ (48 hr) 0.00012 mg/l

Algae

Static test EC₅₀ (72h) >100 mg/l (*Pseudokirchneriella subcapitata*)

Birds

Acute oral LD ₅₀	>2000 mg/kg (bobwhite quail); 26 mg/kg (mallard ducks)
Dietary LC ₅₀	383 mg/kg diet for mallard ducks

Bees

Toxicity to bees LD ₅₀ (oral)	0.004 µg/bee.
Toxicity to bees LD ₅₀ (contact)	0.001 µg/bee.

Worms

LC ₅₀ (14d)	33 mg/kg soil (Earthworms)
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Biodegradability: Binds tightly to the soil, with rapid degradation by soil micro-organisms. No bioaccumulation.

Bioaccumulation: Low bioaccumulation potential.

Mobility: Low mobility in the soil.

13. DISPOSAL CONSIDERATION

Pesticide Disposal: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Package Product Wastes: Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is cleaned, reconditioned or destroyed. Thereafter, rinse the container three times with a volume of water equal to a minimum of one third of that of the container. Puncture the triple rinsed container and dispose of via an approved collector or recycler (www.croplife.co.za). Do not bury, burn or donate the container to any other parties that may use it as a container for food or beverages.

14. TRANSPORT INFORMATION

UN Number	2903
Road Transport ADR/IRD:	
Class:	3
Packaging group:	III
UN proper Shipping Name:	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S flash point not less than 23 °C
Maritime Transport IMDG/IMO:	
Class:	3
Packaging group:	III
UN proper Shipping Name:	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S flash point not less than 23 °C
Marine Pollutant (Y/N):	Yes
Air Transport IATA/ICAO:	
Class:	3
Packaging group:	III
UN proper Shipping Name:	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S flash point not less than 23 °C

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model

Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 8, 2019.

Relevant information regarding restrictions: None.

EU regulation: Regulation EC1272/2008 (EU-GHS/CLP)

Other national regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996). SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes. National Environmental Management Waste Act 59 of 2008. Act 36 of 1947 of the Republic of South Africa. This product is registered under it is a violation of South African law to use this product in any manner inconsistent with its approved labelling. Read and follow all label directions

Chemical Safety Assessment carried out? No

16. OTHER INFORMATION

Note: Read and understand all the information on the product label before using the product.

Other hazard statements, abbreviations and explanations:

H302: Harmful if swallowed.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H335: May cause respiratory irritation.

H336: May cause drowsiness or dizziness.

H373: May cause damage to organs through prolonged and repeated exposure

H361d: Suspected of damaging unborn child.

H224: Extremely flammable liquid and vapour.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

IATA: International Air Transport Association.

IBC: International Bulk Chemical.

ICAO: International Civil Aviation Organization.

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization.

LD50 value: The median lethal dose or the amount of a toxic agent that is sufficient to kill 50 percent of a population within a certain period of time.

OEL/RL: Occupational exposure limit-recommended limit.

TWA: Time-weighted average – The average exposure over a specified period, usually a nominal eight hours.

ST/STEL: Short-term exposure limits.

Disclaimer: The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product, nor where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.

END OF DOCUMENT

Compiled: /
Reviewed: July 2025
Next revision: July 2030

For detailed information on revisions, contact the registration holder.