

According to UN GHS 8th Ed Revision Date: 25/06/2022

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

Product identifier:

Identification as on the label/Trade name: Attacke

Common name: Lambda-cyhalothrin (pyrethroid) 50 g/l EC

Relevant identification uses of the substance and uses advised against:

Identified uses: Insecticide

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

Enviro Bio-Chem (Pty) Ltd, 44 Kerk Street, Lichtenburg, North West, South Africa, 2740

Details of the Registration Holder:

Erintrade CC t/a RT Chemicals 44 Kerk Street, Lichtenburg, North West, South Africa, 2740

Contact Details:

Telephone: +27 87 231 7261

Fax: 086 541 7948

Website: www.envirobiochem.co.za

Emergency telephone numbers:

24 Hour Emergency Number: Bateleur: +27 83 123 3911 Griffon Poison Information Centre: +27 82 446 8946

Poisons Information Helpline: 0861 555 777 Tygerberg Hospital: +27 21 931 6129

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to Regulation (EC) No 1272/2008 EU-GHS/CLP

Hazard classes/Hazard categories	Hazard statement
Flammable Liquid (Category 3)	H226
Acute toxicity (Category 4)	H302
Aspiration Hazard (Category 1)	H304
Acute toxicity (Category 4)	H312
Skin corrosion (Category 1B)	H314
Acute toxicity (Category 4)	H332
STOT SE (Category 3)	H335
STOT SE (Category 3)	H336
Germ cell mutagenicity (Category 2)	H341
STOT RE (Category 2)	H373
Aquatic Toxicity Acute (Category 1)	H400
Aquatic Toxicity Chronic (Category 2)	H411

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: Highly flammable liquid and vapour

The most important adverse human health effects: May be fatal if ingested and aspiration occurs. Harmful if swallowed.

Harmful if inhaled. Causes severe skin burns and eye damage. Suspected of causing genetic defects. May cause damage to



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organs through prolonged or repeated exposure. May cause respiratory irritation. \\

Label elements



Hazard pictograms: Signal Word: Danger

Hazard Statements:

H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H304	May be fatal if swallowed and enters airways
H373	May cause damage to organs through prolonged or repeated exposure
H341	Suspected of causing genetic defects
H226	Flammable liquid and vapour
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements:

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P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.	
P233	Keep container tightly closed.	
P264	Wash hands, forearms, and face thoroughly after handling.	
P270	Do not eat, drink, or smoke when using this product.	
P280	Wear impervious rubber gloves and boots, protective clothing and chemical safety goggles.	
P271	Use only outdoors or in a well-ventilated area.	
P260	Do not breathe dust/fumes/gas/mist/vapours/spray.	
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.	
P331	Do NOT induce vomiting.	
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.	
P310	Immediately call a POISION CENTRE.	
P362/364:	Take off contaminated clothing and wash it before reuse.	
P405	Store locked up	
P403+P235	Store in a well-ventilated place. Keep cool.	
P273	Avoid release to the environment.	
P391	Collect spillage	
P501	Dispose of contents/container in accordance with local/regional/ national regulations.	



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Other hazards: No data available

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

ingredients.	CAS Number.	Concentration	Classification
Substance name (IUPAC)	c/15 ivamber.	% by weight	
		, ,	EC1272/2008
			Acute Toxicity Oral (Category 3) H301
			Acute Toxicity Dermal (Category 3) H311
Lambda cyhalothrin	91465-08-6	6%	Acute Toxicity Inhalation (Category 1) H330
			Aquatic Acute (Category 1) H400
			Aquatic Chronic (Category 1) H410
Emulgent	9002-92-0	<10%	Acute Toxicity Oral (Category 4) H302
	26264-06-02		Skin Irritation (Category 2) H315
	20204-00-02		Aquatic Chronic (Category 4) H413
	108-95-2		
	92128-67-1		
			Flammable liquids (Category 3), H226
			Acute toxicity, Inhalation (Category 4), H332
Xylene 1330-20-7			Acute toxicity, Dermal (Category 4), H312
			Skin irritation (Category 2), H315
	1220 20 7	<90%	Eye irritation (Category 2), H319
	1330-20-7		STOT SE (Category 3), Respiratory system, H335
			STOT SE (Category 3) CNS, H336
			STOT RE (Category 2), H373
			Aspiration hazard (Category 1), H304
		Aquatic chronic (Category 3), H412	

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.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, 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.

In case of eye contact: Flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately. In case of ingestion Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or



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waistband.

Most important symptoms and effects, both acute and delayed:

Inhalation: 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.

Ingestions: Harmful if swallowed. May be fatal if swallowed and enters airways

Skin contact: Causes severe skin burns. **Eye contact:** Causes serious eye damage

Mutagenic: Suspected of causing genetic defect

Specific Target Organ Toxicity: May cause damage to organs through prolonged or repeated exposure. May cause respiratory

irritation.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically and supportively.

SECTION 5. FIRE FIGHTING MEASURES

Extinguisher media:

Suitable extinguisher media: Foam. Dry powder. Carbon dioxide. Water spray.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Specific hazards arising from the mixture:

Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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

Advice for fire-fighters:

Avoid inhaling hazardous vapours. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent.

Contain fire control agents for later disposal according to Section 13.

Water can be used to cool unaffected containers.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment, and emergency procedures:

For non-emergency personnel: Keep all personal away may be harmful by inhalation. Do not breathe in spray or fumes.

Avoid contact with eyes and skin.

For emergency responders: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Use an approved/certified respirator or equivalent Avoid contact with eyes and skin. Do not breathe in irritating or poisonous fumes. Refer to section 8 for recommended personal protective equipment. Evacuate unnecessary personnel.

Environmental precautions:

Stop leak if without risk. Do not touch spilled material. Use a light water spray to reduce vapours.

Prevent entry into drains, watercourses, or confined areas; dike if needed.

If the product contaminates public water, inform appropriate authorities immediately in accordance with local regulations.

Dispose in a safe manner in accordance with local/national regulations.

Methods for containment and cleaning up:



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For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite, or diatomaceous earth

For large spills Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product Reference to other sections:

See Section 1 for emergency contact information

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

This product is flammable. Harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. Suspected of causing genetic effects. May cause damage to organs through prolonged exposure to organs. Use with adequate ventilation. Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store in the original container in a cool, dry, ventilated, locked place out of direct sunlight and out of the reach of children and uninformed persons. Store away from food, feed, drink, and tobacco products. Store where streams and underground water cannot be accidentally contaminated. Keep the container closed when not in use.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Acceptable Daily Intake (ADI): 0.0005 mg/kg body weight (Lambda-cyhalothrin).

Exposure Limits:

Components	Short Term Exposure Limit STEL (15 minutes)	Threshold Limit Value TLV (TWA)
Xylene	150 ppm	100 ppm

Exposure control:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: It is essential to provide adequate ventilation. Provide explosion proof local exhaust ventilation or other suitable engineering controls. Ensure that eye wash stations and safety showers are proximal to the work-station location.



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Hygiene measures: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Avoid contact with eyes. Wear a full-face shield when handling the product or spraying. The use of safety glasses with side shields (or goggles) are recommended if a face shield is not used.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Full body covering, shoes and socks. Appropriate impervious clothing is required to prevent skin contact with the product.

Respiratory protection: Work only in a well-ventilated area. Respiratory protection is required; a properly fit-tested respirator fitted with organic vapour cartridges is required.

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Colour	Pale yellow
Odour	Characteristic solvent odour
Odour threshold	No data available
рН	No data available
Melting point / freezing point (°C)	No data available
Boiling point (°C) Xylene	137-140
Flash point (°C)	38 °C
Evaporation rate	No data available
Flammability	Flammable and combustible liquid and vapour.
Upper /lower flammability limits	No data available
Vapour pressure 20°C	No data available
Vapour density	No data available
Relative density (25°C)	0.89
Water solubility (g/l) at 20°C	Forms a stable emulsion in water
Partition coefficient : n-octanol/water	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 Explosive limits, vol%	1.1 -7.0
in air (Xylene)	
Oxidising properties	No data available
Explosive limits	No data available

SECTION 10. STABILTY AND REACTIVITY

Reactivity:

The product is stable under normal conditions. Hydrolysis above pH 7.

Chemical stability:

Stable under normal storage conditions for 2 years. Avoid excessive heat sources.

Possibility of hazardous reactions:

No information available.

Conditions to avoid:



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Avoid direct sunlight, open flames, ignition sources, high temperatures, sources of heat. As a result of flow and agitation, electrostatic charges can be generated. Above 27 °C explosive vapour/air mixtures may be formed.

Incompatible materials:

Incompatible with non-chemical resistant packing material. The product will react with strong acids and bases and oxidizing agents. Xylene may act as solvent for some plastics and rubbers.

The active ingredient will be destroyed by hydrolysis above pH 7.

Hazardous decomposition products:

Toxic materials are formed during exposure to high temperatures.

Product formed in the environment includes 3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethyl cyclopropane carboxylic acid; 3-phenoxybenzaldehyde; 3-phenoxy-benzoic acid and a few other minor degradation products, some of which are significantly more toxic. Hazardous fumes may be emitted when the product is burning.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution: No data available

Information on toxicological effects:

Assessment of acute toxicity:

The product has not been tested. The data reported is for the main ingredients in the mixture.

Lambda Cyhalothrin CAS No. 91465-08-6		
Acute toxicity:		
Acute Oral LD50 (rat - male)	56 mg/kg	
Acute Dermal LD50 (rat):	632 mg/kg	
Acute Inhalation LC50 - 4 h (rat)	0.06 mg/l	
Skin irritation/ corrosion (rabbits)	Non irritating to skin	
Eye damage / irritation (rabbits)	Mild eye irritant	
Respiratory or skin sensitization (Guinea pig)	Not a skin sensitiser	
Germ cell mutagenicity	Non mutagenic in the Ames test	
Carcinogenicity	Not classified	
Reproductive toxicity	Suspected of damaging the unborn child	
Specific Target Organ Toxicity STOT single exposure	Not classified	
Specific Target Organ Toxicity STOT repeated exposure	Causes damage to organs through prolonged or repeated	
Aspiration hazard	Not classified	

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Xylene CAS No. 1330-20-7		
Acute toxicity:		
Acute Oral LD50 (rat - male)	3523-4000 mg/kg	
Acute Dermal LD50 (rabbit):	1700 mg/kg bw	
Acute Inhalation LC50 - 4 h (rat)	29.09 mg/l	
Skin irritation/ corrosion (rabbits)	Moderate skin irritation - 24 h	
Eye damage / irritation (rabbits)	Causes serious eye irritation 24 h	
Respiratory or skin sensitization Sensitisation: Local lymph node assay (LLNA) - Mouse	Negative	



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Germ cell mutagenicity:

Test Type: Mutagenicity (mammal cell test): chromosome aberration

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Method: Regulation (EC) No. 440/2008, Annex, B.10

Result: Negative
Test Type: Ames test

Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific Target Organ Toxicity STOT single exposure	May cause respiratory irritation Respiratory system system.
Specific Target Organ Toxicity STOT repeated exposure	Inhalation - May cause damage to organs through prolonged or repeated exposure Central nervous system, Liver, Kidney
Aspiration hazard	May be fatal if swallowed and enters airways.

Additional Information: Blurred vision, Incoordination., Headache, Nausea, Vomiting, Dizziness, Weakness, anemia,

Prolonged or repeated exposure to skin causes defatting and dermatitis.

Systemic effects: headache, drowsiness, dizziness agitation, spasms narcosis inebriation

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ECOLOGICAL INFORMATION

Lambda Cyhalothrin CAS No. 91465-08-6		
Toxicity		
Birds Acute oral LD ₅₀ Dietary LC ₅₀	>3950 mg/kg Mallard Ducks > 5300 mg/kg Quail	
Aquatic Toxicity Fish LC_{50} (96h) Aquatic Toxicity Daphnia EC_{50} (72h) Algae Toxicity E_rC_{50} (96h) Bee Toxicity LD_{50}	0.00021 mg/l (bluegill sunfish);0.00036 mg/l (rainbow trout) 0.00026 mg/l in water; 0.00031 mg/l in water/ sediment >1000µg/l (Selenastrum capricornutum) 909 ng/bee (oral); 38ng/bee (contact)	
Other beneficial organisms:	Toxic to some non-target arthropods. Effects under field conditions are reduced, with rapid recovery.	
Persistence and degradability	Is moderately persistent in the soil. Field half-lives range from 4 to 12 weeks. Lambda-cyhalothrin shows a high affinity for soil, reported Koc is 180 000, and not expected to be appreciably mobile in most soils. Little potential for groundwater contamination.	
Bioaccumulation potential	Low bioaccumulation potential.	
Mobility in soil	Low mobility (soil)	

Xylene CAS No. 1330-20-7	
Toxicity	



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Aquatic Toxicity Fish LC ₅₀ static test (96 hr) Aquatic Toxicity Daphnia semi static EC ₅₀ (96 hr) Toxicity to algae – static test EC50 (73 hr) Toxicity to bacteria static test IC50 (3h)	2.60 mg/l Oncorhynchus mykiss (rainbow trout) No data available 4.36 mg/l Pseudokirchneriella subcapitata (green algae) No data available
Persistence and degradability	
Biodegradability-aerobic 28 days	94 % - Readily biodegradable.
Bioaccumulation potential	
Bioaccumulation 56 days @ 10 °C	1.3 mg/l (Xylene) - Oncorhynchus mykiss (rainbow trout) - Bioconcentration factor (BCF): 7.4 - 18.5
Mobility in Soil	No data available
Result of PBT and vPvB assessment	No data available
Other adverse effects	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product:

Keep out of drains, sewers, ditches, and waterways. Refer to container label for disposal information. Treat as hazardous waste and dispose of in accordance with local/regional/national/international regulations.

Container:

Refer to container label for disposal information. Triple or pressure rinse empty containers. Pour rinse water into spray tank. Dispose of as hazardous waste. Do not contaminate water when disposing of rinse water. Dispose of using an approved waste disposal service provider. Follow all local/regional/national/international regulations.

SECTION 14. TRANSPORT INFORMATION

UN Number	3351
UN proper shipping name	Pyrethroid Pesticide; Liquid; Toxic; Flammable, flash point not less than 23 °C (Lambda-cyhalothrin 50g/l/xylene)
Transport hazard class	6.1 (3)
Packaging group	II
Marine pollutant	Yes

SECTION 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:

EU regulations: Regulation EC 1272/2008 [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 a violation of South African



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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

SECTION 16. OTHER INFORMATION

Indication of changes:

Classification according to SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP] GHS aligned – all sections

Relevant H statements (number and full text): Section 3

STOT SE 3- Specific Target Organ Toxicity single exposure (Category 3), Respiratory System

STOT RE 2- Specific Target Organ Toxicity repeated exposure (Category 2), Respiratory system, Central nervous system,

Liver, Kidney.

H301-Toxic if swallowed

H302-Harmful if swallowed

H311-Toxic in contact with skin

H315-Causes skin irritation

H330-Fatal if inhaled

H413-May cause long lasting harmful effects to aquatic life

H226-Flammable liquid and vapour

H312-Harmful in contact with skin

H332-Harmful if inhaled

H315-Causes skin irritation

H412-harmful to aquatic life with long lasting effects

H319-Causes serious eye irritation

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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.